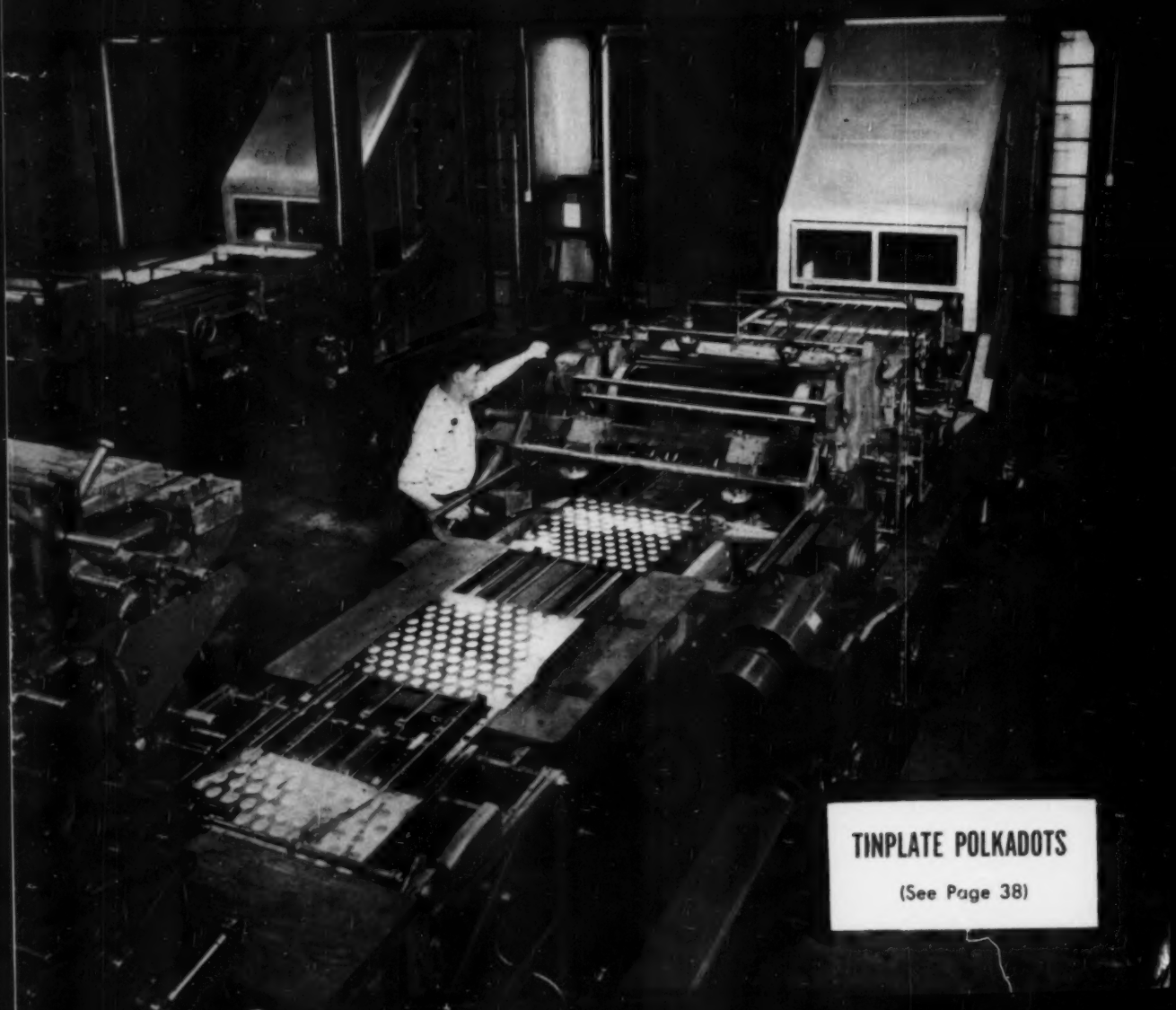
LITHOGRAPHY



TINPLATE POLKADOTS

(See Page 38)

IT TAKES A RIGHT PAPER TO DO A "RIGHT" JOB

ANNOUNCING
A NEW CREATION IN OFFSET PAPER
WHITNEY OFFSET

Nothing like it • Quality at low cost

The result of long laboratory research . . . Whitney Offset gives you the qualities of an expensive offset sheet at a rock-bottom price. Greater opacity. Good reproduction on both sides. Minimum stretch, shrink and curl. Clean . . . free from fuzz.

See for yourself. Write for samples today.

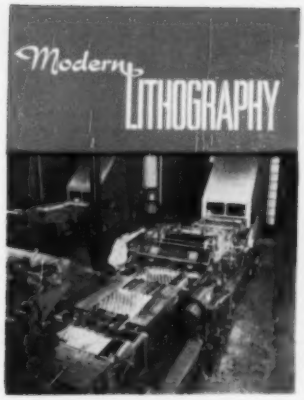
H & W RESEARCH KEEPS AHEAD OF YOUR PAPER NEEDS

TRADE H AND W MARK

HOLLINGSWORTH & WHITNEY COMPANY

Executive Offices: 60 BATTERYMARCH STREET, BOSTON, MASSACHUSETTS

Divisional Sales Offices: 230 Park Avenue, New York, N. Y.—111 West Washington Street, Chicago, Illinois



THE COVER

American Can Co. is now operating the largest metal decorating plant in the South at Tampa, Fla. Here is one of the four production lines. Facilities are to be doubled in 1951. *(Story on page 38.)*

LITHOGRAPHIC TECHNICAL FOUNDATION

MEMBER AUDIT BUREAU OF CIRCULATIONS

ROBERT P. LONG
Editor

THOMAS MORGAN
Business Manager

•

Address all correspondence to 254 W. 31st St. New York 1. N. Y.

May, 1950 **VOLUME 18, NO. 5**

What You Will Find in this Issue

MODERN LITHOGRAPHY
Reg. U. S. Pat. Office

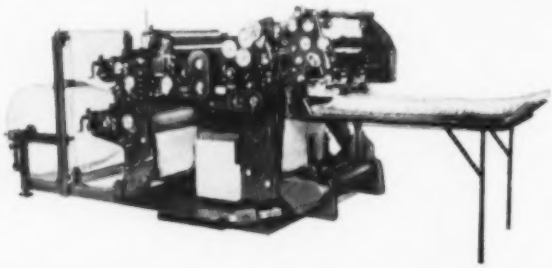
SUBSCRIPTION RATES: *One year* $3.00, *two years* $5.00. *Canada one year,* $4.00, *two years* $7.00. *Foreign, one year,* $5.00, *two years,* $9.00. *Group subscriptions (U. S. only) Four or more entered as a group,* $1.50 *each. (May be sent to different addresses.)*

WAYNE E. DOBLAND, *President;* IRA P. MACNAIR, *Secretary-Treasurer.* Published monthly on the 15th by Industry Publications, Inc., 133 Market Place, Baltimore 2, Md. Advertising and Editorial Office, 254 W. 31st St., New York 1, N. Y. Advertising rates made known on application. Closing date for copy—25th of the month previous to date of issue. Entered as second class matter at the Post Office at Baltimore, Md., under the Act of March 3, 1879.

PROFIT FULLY ON THE TREND TO OFFSET WITH

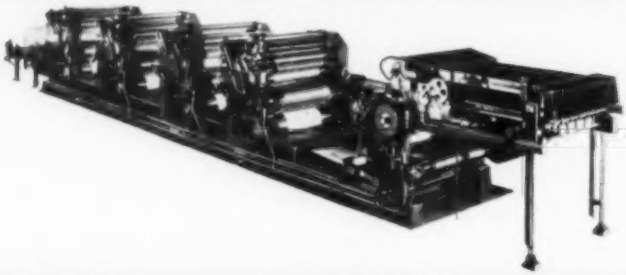
PUBLICATION PRESSES

The model illustrated here is a multicolor newspaper magazine style web perfecting press for standard size newspapers, tabloids, shopping guides, magazines, comics, direct mail posters, wrappers, broadsides and digest-size booklets.



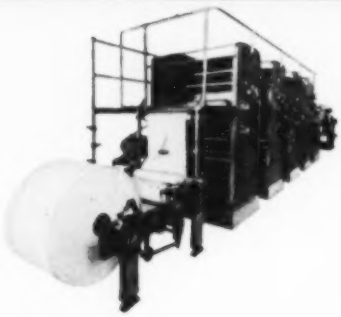
FORM PRESSES

These are high-speed web-fed presses for printing of one-time carbon sets or continuous forms by offset or rubber and stereotype plates.



WEB COLOR PRESSES

This model delivers sheets or rewound rolls. Ideal for printing book jackets, post cards, box wraps, gift wraps, inserts and magazine covers, folders, broadsides, booklets.



SPECIALTY WEB PRESSES

The model illustrated here shows one of these presses built for printing desk calendars, pattern charts, place mats, instruction sheets, insurance policies and other special jobs.

THE *Greater Facilities* OF WEBENDORFER WEB-FED OFFSET PRESSES

- BOOK JACKETS
- BOX WRAPS
- LABELS
- GIFT WRAPS
- BROADSIDES
- MAPS
- FOLDERS
- PARTS BOOKS
- MAGAZINES
- NEWSPAPERS
- PHONE BOOKS
- MAGAZINE INSERTS

The tide is coming in! It's the trend! Offset's versatility in the production of printing, with the eye appeal demanded in these days of visual selling, is building up more and more volume.

And now web-fed offset brings you even greater versatility and lower production costs. Webendorfer web-fed offset presses and printing equipment offer these additional profit making facilities: printing on both sides in multicolor, folding, numbering, perforating, sheeting, and collating.

Are you being passed up by economy and delivery minded printing buyers for the lack of web equipment?

Why not look into this sound approach to future plant expansion? Ask for the illustrated brochure giving complete details of the four types of Webendorfer web-fed presses. One of these presses may be the ideal solution of your production requirement. Get ready to ride the tide. Write today.

AMERICAN TYPE FOUNDERS

Webendorfer Division, 2 South Street, Mount Vernon, New York

ATF

Ask for your copy
of the brochure showing the ATF Webendorfer web-fed offset presses

NEW YORK PRINTERS & BOOKBINDERS MUTUAL INSURANCE COMPANY

The Insurance Company of the

GRAPHIC ARTS INDUSTRY

A MAXIMUM OF SERVICE—through specialization and concentration in the GRAPHIC ARTS INDUSTRY.

A MINIMUM OF COST—DIVIDENDS—maintained at the favorable rates of 22% on workman's Compensation policies and 25% on Automobile Liability & Property Damage Policies—a worthwhile SAVING.

ABSOLUTE PROTECTION—after savings returned in Dividends on policy expirations averaging in excess of 23% since organization, there remains an unusually *LARGE SURPLUS* after setting aside reserves to meet known Losses and Contingencies.

SURPLUS $709,284.45—Representing A MORE THAN CONSERVATIVE RATIO—almost ⅓ of the total assets.

DIVIDENDS PAID TO POLICY HOLDERS REDUCE INSURANCE COSTS OF YOUR

Compensation and Automobile Liability Insurance

MODERN LITHOGRAPHY, May, 1950

CHECK THE COMPANY. . . *AT A GLANCE*

1949 Premiums Written	1949 Assets	1949 Surplus
$986,402.36	**$2,285,733.33**	**$709,284.45**

Condensed statement of the condition of the company as of December 31st, 1949.

ASSETS

Cash On deposit with Bankers Trust Company, et al (except for $50.00 in company's office)	$122,856.23	**Premiums in the Course of Collection** Due to the company on policies just issued, excluding any premiums outstanding ninety days.	$185,494.85
*** U. S. Government Bonds** Equivalent to more than 83% actual market value of all Bonds and Stocks held	1,522,227.02	**Deposit in Mutual Corporations Re-insurance Fund** On deposit jointly with moneys of other mutual companies, to be used for losses in excess of $25,000.00 and less than $75,000.00. Loss in excess of $75,000.00 up to $5,000,000.00 is further reinsured.	73,678.64
*** Other Bonds and Stocks** Rails, Utilities and Industrials	321,153.88		
Mortgages First Mortgage Loans on improved New York City real estate	37,514.82	**Miscellaneous Assets** Interest accrued to date: Reinsurance recoverable, etc.	10,307.89
Real Estate Acquired as a result of foreclosures	12,500.00		
TOTAL ADMITTED ASSETS			$2,285,733.33

LIABILITIES

Loss Reserve Set aside as required by law to meet future cost of accidents which occurred prior to date of this statement	$998,532.44	**Unearned Premium Reserve** Pro rata portion of premiums unearned on policies which have not expired	$347,770.45
		Other Liabilities Salaries, Taxes, etc., due but unpaid as of date of this statement	42,702.52
State Workmen's Compensation Board Expense Estimated amount hereafter payable to New York Workmen's Compensation Board, for expenses of administering the Law	74,784.65	**Dividend Reserve** Set aside to meet future payments on unexpired unaudited policies expiring up to and including February 28, 1950	71,291.64
		Special Reserve Retirement fund and losses in excess of $10,000 and less than $25,000	41,367.18
TOTAL LIABILITIES			$1,576,448.88
****SURPLUS**			**$709,284.45**
TOTAL			$2,285,733.33

* Bonds and Stocks valued on New York Insurance Department Convention Value Basis. Securities carried at $275,000.00, included above, are deposited for purposes as required by law.

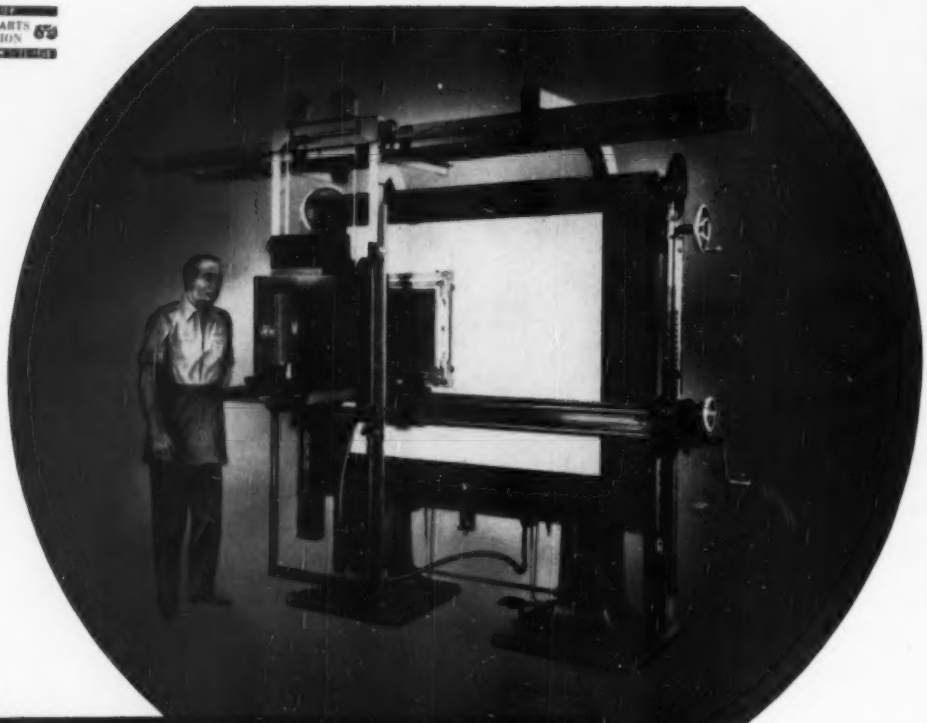
** If actual December 31, 1949, market value of Securities had been used, surplus would have been $711,111.75

NEW YORK PRINTERS & BOOKBINDERS MUTUAL INSURANCE COMPANY

C. F. Von Dreusche, President and General Mgr.

147 FOURTH AVENUE • • Telephone ORegon—7-4223 • • NEW YORK 3, N. Y.

GRAPHIC ARTS EXPOSITION 50



ON THE SPOT exactly!

The M-H Photo-Composing Machine enables operators to position lithographic negatives or positives, horizontally or vertically, with extreme accuracy on any spot of your lithographic or gravure plate.

The rigid yet simple construction of the M-H Photo-Composing Machine permits set adjustments to insure definite and absolute on-the-spot positioning of all images.

The fully tested materials and fine workmanship used in its construction insure positive accuracy and long life.

The standard register device provides for registration of negatives up to 28″ x 30″; the oversize register device for negatives up to 28″ x 42″.

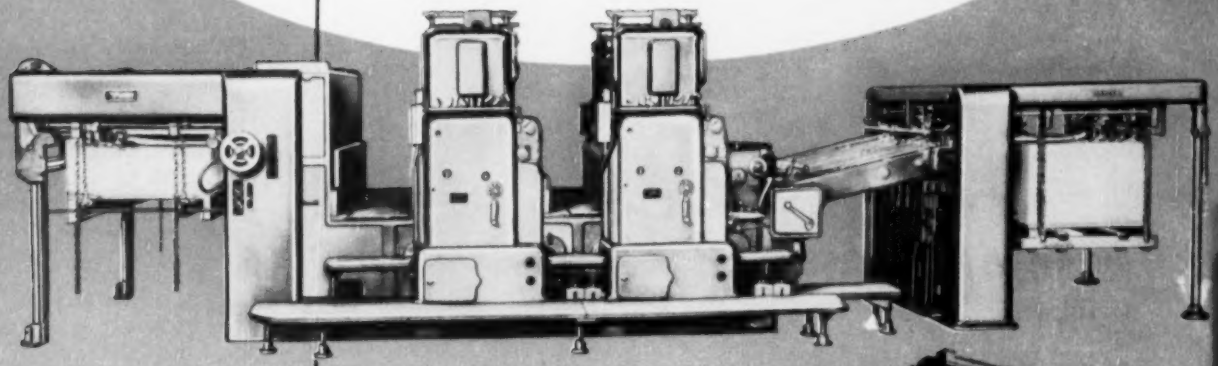
Complete information on the MONOTYPE-HUEBNER PHOTO-COMPOSING MACHINE and other precision lithographic equipment will be gladly furnished on request.

LANSTON MONOTYPE MACHINE COMPANY
24th and Locust Streets, Philadelphia 3, Pennsylvania

BRANCH OFFICES: 116 Spring Street, N.W., Atlanta 3, Georgia • 170 Summer Street, Boston 10, Massachusetts • 216 W. Jackson Boulevard, Chicago 6, Illinois • 441 Lexington Avenue, New York 17, New York • 55 New Montgomery Street, San Francisco 5, California • IN CANADA: Monotype Company of Canada, Limited, 54 Adelaide Street, West Toronto, Toronto 1, Ontario, Canada

• MANUFACTURERS OF PHOTO MECHANICAL EQUIPMENTS •

MIEHLE sets the pace



Plant of Brett Lithographing Co.
Long Island City, New York

WILLIAM WINSHIP,
Vice-President
of Brett Lithographing Co., says,

"We find our new Miehle Offsets are setting the production pace in our plant. Their higher speeds and continuous operation have solved the tough problem of increasing our production. Our pressroom is now boasting of turning out more printed sheets per day of consistently high quality—thanks to our dependable, hard-working Miehles."

MIEHLE OFFSET PRESSES...BUILT IN TWO SIZES

- **Unit Construction—Single and Multi-Color**
- **The No. 61—Maximum sheet 42"x 58"—Speeds up to 6500**
- **The No. 76—Maximum sheet 52"x 76"—Speeds up to 6000**

EXHIBITOR
GRAPHIC ARTS EXPOSITION '65
CHICAGO SEPTEMBER 20-25, 1965

the Miehle

MIEHLE PRINTING PRESS & MANUFACTURING COMPANY

Builders of Offset Presses for more than a Quarter Century

CHICAGO 8, ILLINOIS

Lawson Leadership

CUTS PRODUCTION TIME 1/3

ATLAS LITHOGRAPHING COMPANY

Producers of High Quality Commercial and Color Lithography

930 North Avenue Millvale Branch Pittsburgh, Pa.

Phone Millvale 1925 & 7

April 28, 1950

E. P. Lawson Company, Inc.
426 West 33rd Street
New York 1, New York

Gentlemen:

We are happy to report at this time that we are very much pleased with the operation of our LAWSON ELECTRONIC SPACER Cutter. After its erection we placed a job consisting of 75,000, 6 ½ x 22 posters, bleed four sides which cut four out of 22½ x 35. This entailed ten cuts and nine handlings with our old conventional cutter; but with the new ELECTRONIC SPACER cutter, it did away with eight of the stock handlings.

On this particular job, we estimated the cutting time at seven and one half hours, while the actual time consumed by your revolutionary ELECTRONIC SPACER was only five hours or approximately 33 1/3% saving in production time - a most considerable economy in today's manufacturing operation!

Our congratulations to you for an outstanding engineering achievement. You have ample reason to be proud of the job you have done.

Sincerely yours,

ATLAS LITHOGRAPHING COMPANY

Don E. Gephardt

Don E. Gephardt

- Positive hairline accuracy.
- Hydraulic back gauge — smooth — no jar or chatter.
- Easy to set, positive acting electronic signals, free from trouble and costly maintenance.
- Hexagonal spacer bar — six individually complete set-ups.
- Vinylite strip used for repeat jobs eliminates set up time.

LAWSON ELECTRONIC SPACER

Write today for complete, fully illustrated descriptions and specifications of the 39", 46" and 52" LAWSON CUTTERS

LAWSON CUTTERS RATE BEST • PIONEERS IN PAPER CUTTING MACHINERY SINCE 1881 • E.P. Lawson Co. Inc. Boston Philadelphia Chicago

E. P. LAWSON CO.

MAIN OFFICE • 426 WEST 33rd ST., NEW YORK

BOSTON 170 Summer St. • **CHICAGO** 628 So. Dearborn St. • **PHILADELPHIA** Bourse Building

EXCLUSIVE DISTRIBUTORS • SALES and SERVICE

HARRY W. BRINTNALL CO., INC.	*Los Angeles, San Francisco, Seattle*
A. E. HEINSOHN PRINTING MACHINERY	*Denver, Colo.*
SOUTHEASTERN PRINTERS SUPPLY CO.	*Atlanta, Ga.*
SOUTHWESTERN PRINTERS SUPPLY, INC.	*Dallas, Texas*
SEARS LIMITED	*Toronto, Montreal, Winnipeg, Vancouver*

oooooh— that "Kiss"

with the new Dayco lithographic blanket!

- MORE SNAP AND SPARKLE
- DOTS SHARP AND CLEAN
- FIRMER HIGH LIGHTS
- CLEANER SHADOWS

The new Dayco Lithographic Blanket gives that perfect, clean-cut printing impression—the "kiss" that makes lithographers pop with pride. It adds snap and sparkle to the finest offset, prints dots as sharp and clean as the dots on your plate. Gives you firmer high lights, cleaner shadows, all-around better impressions.

The Dayco Lithographic Blanket is made to last, has more impression life, will not peel or split from the fabric base. Its uniform thickness stays level and velvety smooth; resists swelling, embossing, debossing, glazing, tackiness and creeping. Stretch controlled to less than 2%. Available in red, gray, or black color. For more and better "kiss" impressions, write today: *The Dayton Rubber Company, Dayton 1, Ohio.*

KISS YOUR REGISTER TROUBLES GOODBYE!

Here's what the press foreman of the world's largest independent print-shop says about the Dayco Lithographic Blanket: "Best blanket I ever used. It absolutely stops off-registering on multi-color work, has the right resiliency for ink pick-up, without blurring or 'doubling'."

CHICAGO GRAPHIC ARTS EXPOSITION '50

Dayton Rubber

DAYTON RUBBER COMPANY, DAYTON 1, OHIO

26 BASIC MACHINES

used by Printers, Lithographers, Binders . . . for

FEEDING CHRISTENSEN CONTINUOUS STREAM FEEDER—For flat-bed, rotary and offset presses and varnishing machines where high speed is essential.

DEXTER CONTINUOUS RELOADING CARDBOARD FEEDER—Feeds cardboard up to 40 point thickness to any make flat-bed printing press, also to flat-bed cutting and creasing presses, in sheet sizes up to maximum capacity of press.

CHRISTENSEN PILE SUCTION STREAM FEEDER—For flat-bed, rotary and offset presses and varnishing machines.

DEXTER CONTINUOUS RELOADING SHEET METAL FEEDER—Feeding sheets 38 to 24 gauge, in standard sizes 14 x 18" to 36 x 44"—at speeds of up to 80 per minute—and available also on special order to handle larger sheets, this Dexter Machine provides operation uninterrupted by stops for reloading.

FOLDING CLEVELAND FOLDING MACHINES—For circulars, greeting cards, booklets, singly or in gangs — catalogs, publications, etc. **Seven models**, covering every bindery requirement and handling sheets from 3 x 4" to 42 x 62".

DEXTER JOBBING FOLDERS, DOUBLE SIXTEEN AND QUADRUPLE SIXTEEN FOLDERS—For job work and book folding in sheets from 12 x 15" to 44 x 58".

TRIMMING BRACKETT SAFETY TRIMMER—For label cutting, booklet trimming, singly or in multiple form, and cutting gang work.

GATHERING and STITCHING CHRISTENSEN GANG STITCHER—For inserting and stitching saddle-bound catalogs and periodicals.

McCAIN AUTOMATIC SIGNATURE FEEDER—For use on Christensen Gang Stitcher. Speeds production, secures economies, obviates manual error. Trimmer also available for attachment to this machine.

MARTIN ROTARY GATHERER, STITCHER AND COVERER—For gathering signatures of books prior to other binding operations, and for gathering, side-stitching and covering magazines.

VARNISHING CHRISTENSEN VARNISHING MACHINE—For all types of varnishing jobs.

BRONZING CHRISTENSEN HIGH SPEED BRONZER—For all types of sheet bronzing.

SORTING DEXTER SORTING MACHINE—For paper mills. Speeds production and eliminates waste motion in coated paper and bond finishing rooms.

Sold and serviced by

Dexter Folder Company

General Sales Offices, 330 West 42nd Street, New York 18, N. Y.

SALES REPRESENTATIVES: Chicago, Philadelphia, Boston, Cleveland, Washington, St. Louis

AGENTS: Dallas, Denver, San Francisco, Los Angeles, Seattle, Toronto, Montreal, Winnipeg . . . and in Foreign Countries

"This time let's feature the Trade Mark"

ALL HOWARD ADS carry a trade mark —the sketch of the capitol dome you see below. In this ad the trade mark comes into its own in Victor Keppler's inspiring photo above.

We're doing this to emphasize the fact that our trade mark and slogan have a very real meaning for you. *"The Nation's Business Paper"* is no phase pulled out of a hat or selected from entrants in a prize contest. It means what it says.

It means that HOWARD BOND is a tremendously popular paper with American businessmen. All but a small fraction of the HOWARD BOND made every day goes into business forms and letterheads used by leading companies the world over. It is a paper made for business—purchased by business—approved by business.

If you are a businessman you may want to see and hear why this is so. Your printer or your paper merchant handling HOWARD BOND can give you that information. Even without such proof, you are perfectly safe in specifying HOWARD BOND — the bond known everywhere as *"The Nation's Business Paper."*

HOWARD PAPER MILLS, INC. • HOWARD PAPER COMPANY DIVISION, URBANA, OHIO

Howard Bond

"The Nation's Business Paper"

Advertising is Selling

when it appears on Maxwell Offset

Let us show you how MAXWELL OFFSET can help create the desire for good printing. Send us your letterhead and we'll mail you samples of the 8 distinctive finishes, 7 weights and 3 tints.

IT MUST BE TRUE. Selling gets harder, not easier—and printed advertising consumes more and more MAXWELL OFFSET. Your question, of course, is "Why?"

Here's why: fine printing qualities and complete uniformity of these qualities. That's MAXWELL OFFSET.

You receive a shipment of MAXWELL OFFSET. You run it. No linting, picking, fuzzing or stretching. You find you're running with less down time, better quality. It's no accident. Run it again on the next job. Your customers will find their copy and art packs more power than they thought. And that's good. That's the way to make printed advertising sell for you too.

We repeat: Advertising is selling when it appears on MAXWELL OFFSET.

HOWARD PAPER MILLS, INC. • MAXWELL PAPER COMPANY DIVISION • FRANKLIN, OHIO

DOES YOUR COATING *JINX* YOUR ALBUMEN PLATES ?

If you start with a good coating, your chances for good albumen plates are greatly increased. In many plants, the coating is the "jinx" that causes makeovers and lost time. *BUT* when you use LITH-KEM-KO ALBUMEN AND SENSITIZING UNIT you're assured of perfect performance. This LITH-KEM-KO tested coating makes a strong clean image, covers the plate evenly and smoothly, develops easily giving sharp halftone dots.

LITH-KEM-KO ALBUMEN AND SENSITIZING UNIT is a concentrated preserved, pre-filtered albumen solution. Sensitizer and water can be added daily, in proportionate quantities to insure fresh albumen solution. At all times a range of 4° to 6° Baume can be obtained by the addition of water. It's economical, too! One quart makes up to 70 ounces of solution.

PRICES		West Coast
1 quart unit	3.50	3.75
12 — 1 qt. units — per unit	3.00	3.25
1 gal. unit	10.00	10.75
4 — 1 gal. units — per unit	9.75	10.50
8 — 1 gal. units — per unit	9.50	10.25
12 — 1 gal. units—per unit	9.25	10.00

LITHO CHEMICAL & SUPPLY CO., Inc.
46 HARRIET PLACE
LYNBROOK, LONG ISLAND

LITH-KEM-KO PRECISION USED AROUND THE WORLD UNIFORMITY

Big Orders Coming Your Way?

Brown Pelicans on Nesting Grounds by Allan D. Cruickshank, one of America's foremost wildlife photographers

Contented customers—profitable business *on big orders*—a craftsman's satisfaction with work well done—all come your way more easily when you use new St. Regis Sunbeam Offset M.F.

New types of pulp, pioneered by St. Regis, bring you this low-cost sheet with its amazing values. Its bulk and opacity permit the use of lighter weights with their resulting economies.

A notable feature of this new St. Regis Sunbeam Offset is its surface sizing which eliminates fuzzing and makes it highly resistant to picking. It lies flat before and after running through the press and holds register excellently. Sunbeam Offset also has good brightness and stability of color.

With today's driving demand for utmost economy, don't overlook what St. Regis Sunbeam Offset can do for you and your customers. Write today for samples.

Printing, Publication and Converting Paper Division

ST. REGIS
SALES CORPORATION

Sales Subsidiary of St. Regis Paper Company

230 Park Avenue, New York 17, N. Y.
230 N. Michigan Avenue, Chicago 1, Ill.
218 Martin Brown Bldg., Louisville 2, Ky.

"fine paper for fine printing"

CUT NEGATIVE COSTS UP TO 50%

NEW! TRANSALOID

TRANSPARENT NEGATIVE PAPER

Open Whites • Opaque Blacks • Water Resistant • Transparent
Non-Stripping • Orthochromatic • Lies Flat • Dries Rigidly
Prints as Fast to Plate as Film • Sensitive to Colors
Sharp Halftone Dots • Clean Lines

Transaloid costs less and produces results comparable to costlier materials. It can be used on a wide range of line and halftone work in any shop. The pay-off is in the negative and Transaloid pays off in results. It's good business to keep up to date on new and improved products even if your present materials seem to be satisfactory. After all, you're in business to make money. Your success depends upon producing good work and holding down costs. Transaloid will help you do both. Test Transaloid before you buy. Fill out coupon for sample negative and trial offer.

THE HALOID COMPANY
50-92 HALOID STREET, ROCHESTER 3, NEW YORK
BRANCH OFFICES IN PRINCIPAL CITIES

THE HALOID COMPANY
50-93 Haloid Street, Rochester 3, N. Y.

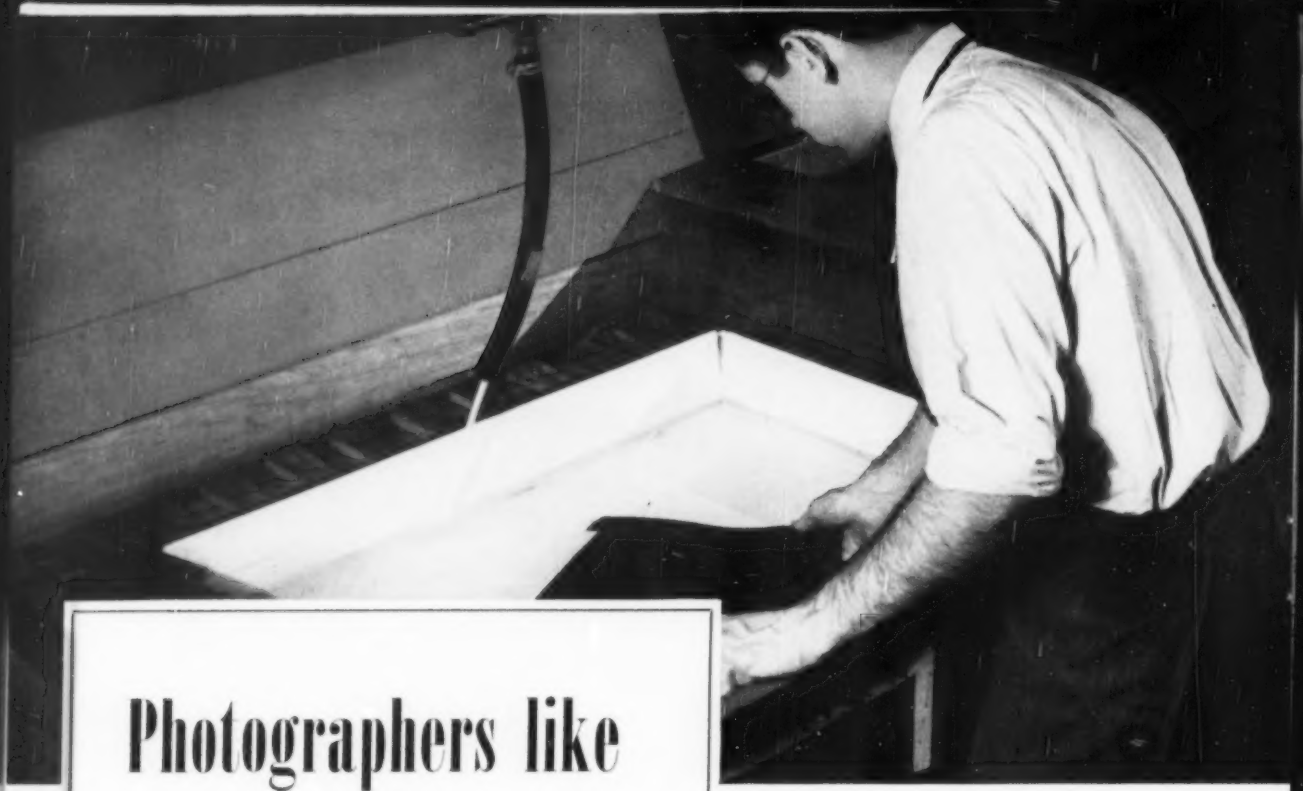
Send sample negative made with Transaloid, also details of your special Trial Offer on satisfaction or money-back guarantee.

Name .....

Company .....

Street .....

City or Town ..... *State* .....



Photographers like "Photolith" because it has wide latitude...

THE wide exposure and development latitude of Du Pont "Photolith" is another reason why this workable Lithographic Film is so well liked. Lithographic photographers in prominent plants say this characteristic of "Photolith" eliminates need for extremely close tolerances in exposing and developing and helps produce top-quality jobs.

"Photolith" has many other important, job-finishing qualities. Inherent high contrast results in clean, hard-edged and correctly gradated dots that hold the core. "Photolith" has speed and color sensitivity . . . a tough, abrasion-resisting emulsion with nonhalation backing that disappears in processing. Negatives hold their size . . . are readily etched to produce the desired brilliance. Quick drying . . . flat lying . . . easy to opaque.

Try "Photolith" in your own plant. Your dealer can supply you. Ask for it by name. E. I. du Pont de Nemours & Co. (Inc.), Photo Products Department, Wilmington 98, Delaware.

Easy-to-use "Lite-Lok" box keeps film clean . . . protects it at all times.

DU PONT "PHOTOLITH"

LITHOGRAPHIC FILM

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

EDITORIALS

LUXURY taxes on film and certain items of photographic equipment, which lithographers have been paying since early in the war, are again being kicked around by the legislative brains in Washington. These taxes, ranging from 15 to 25 percent, have come close to being reduced or repealed on numerous occasions, and we have devoted considerable space in this column to the crusade for their removal.

In April the House Ways and Means Committee got out the axe again and started hacking away at these luxury taxes on the tools of production. They came up with a good recommendation: To exempt from the levy photographic articles purchased as a part of regular business.

It's getting nigh onto ten years since these taxes were imposed as a war emergency and this is about as close to repeal as they have been so far. The Congressional committee has left its foot in the door so it can still do a reverse exit, but we can hope for the best. In the meantime, lithographers will go on paying this outrageous "war emergency luxury" tax.

A CURRENT idea being carried out by the Litho Club of Baltimore for pepping up the programs is working out very well. In addition to the regular speaker at the monthly meetings, the club also has a "coffee speaker."

The coffee speaker is drawn from the club membership, and makes his informal remarks during the coffee course following dinner. The subject is his own company, its background, what kind of work it's doing, unusual things about its operations, and what makes it tick. Speakers usually have an exhibit of work produced by the firm, and a great deal of knowledge is exchanged. The club membership gets a broad view of the industry in its particular city and an idea of the diversity of lithographed products.

Members have indicated that they like it, and considerable interest is being shown in these informal talks.

"THERE is still much witchcraft that must be converted into scientific methods." Thus Dr. Marvin C. Rogers characterized the work of the Technical Association of the Lithographic Industry at its recent meeting in Rochester. Dr. Rogers, research director of R. R. Donnelley & Sons Co., and newly elected president of TALI, summarized the two-day meeting and stated that the papers presented there form the basis of the technical know-how of lithography.

This association, new in our industry, and convening this year for its second annual meeting, has within its ranks much of the promise of future technical advances in our industry. The papers given revealed that the most recent scientific methods, including such things as electronic scanning and computing, and the use of radioactive materials in research, are being utilized to further the progress of lithography. This is being carried on both in cooperative projects and in research programs of private companies.

It all takes time and results often seem distant, but a glance backward a few years shows how far we have come. A glance forward reveals glimpses of better methods of doing things, helping lithographers toward that necessary goal of more production at less cost.

Details Announced on

TIME COLOR SCANNER

A report of specific work done in Life by the scanner first appeared in the February issue of Modern Lithography *(page 100). In an article "Color Correction by Electronics," which discussed another electronic color device developed at the Massachusetts Institute of Technology, appeared in ML, October, 1949, page 47—Editor.*

THE Time color scanner, which produces color separation negatives automatically from color transparencies, was shown to the graphic arts and publishing trades in New York and Chicago for the first time late in April and early in May. The electronic scanner, developed jointly over the last four years by Eastman Kodak Co. and Time Inc.'s Springdale, Conn. laboratory, is now being used in regular production schedules in *Life* magazine, Andrew Heiskell, publisher, said.

While it is in a sense still in an experimental stage with *Life*, because it requires special methods in preparing four-color copy, the New York and Chicago demonstrations were set up to permit printers, lithographers, engravers, and others to study its application to specific color reproduction problems, Mr. Heiskell stated. "The potential use of the scanning process by the printing industry generally is a question which can be answered only by such demonstrations and a long-term study of its application to specific color reproduction problems under scheduled production conditions," he explained.

He called special attention to an eight-page color story on desert flowers in the April 10 issue of *Life*, as an example of "fidelity of reproduction and fine graduations of color values" permitted by the new process.

The Scanner

The Time color scanner is an instrument combining the techniques of electronics, optics, and photography, which has been designed for the production of balanced, continuous-tone, three-color and black separation negatives from transparent copy. The color separations produced by the scanner are referred to as "balanced" because of the three major functions performed during the scanning process, which make the product quite different from conventional camera separations. First, the color separations are color corrected. Second, the black separation, which is computed electronically, is in perfect balance at all points in the picture with the three color separations. Third, the three color separations have had the proper amount of undercolor removed to balance with the black separation.

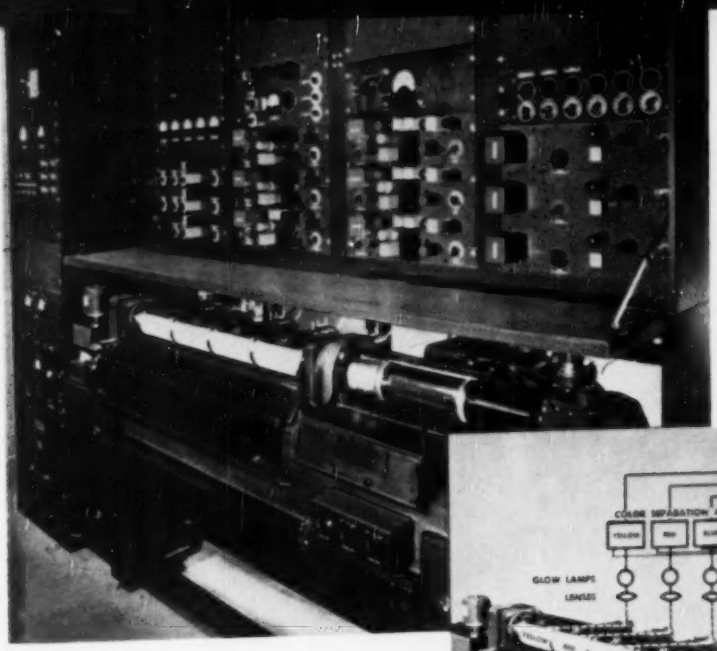
Photographic masking techniques have as their object the same general functions. Electronic color scanning, however, with its ability of color analysis of each minute point of the picture, and its ability to compute color making, undercolor removal, and proper black separation density in a minute fraction of a second, imposes no inherent limitation on the production of color separations which meet all the requirements for a well balanced set, according to Time. From a production and quality standpoint it seems that the substitution of electronic and instantaneous computation for a succession of photographic masking steps is desirable.

A brief description of the operation of the Time color scanner will be helpful in understanding its potential application in the printing field. The color transparency is wrapped around a transparent drum. This transparent drum is a continuation of a steel drum around which are wrapped four sheets of unexposed process film. White light from an incandescent lamp is focused to a minute spot on the inner surface of the color transparency. This light, after passing through the color transparency, takes on the color characteristics of the color transparency at that spot. The colored light is then picked up by

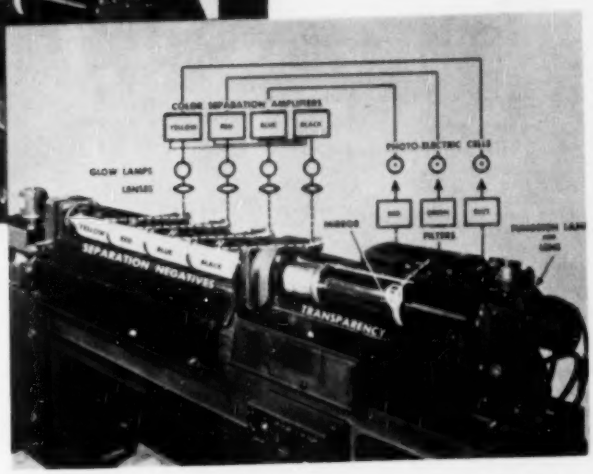
Example of Scanner's Work

This insert, carried here through the courtesy of "Life" magazine, shows part of that publication's regular four-color production run of the April 10 issue. Color separations for this reproduction were made with the scanning machine. A "Life" spokesman said the device analyzes a spot on the copy about 1/500th of an inch square and automatically computes the color relationship, thus producing separations that are "better than we get with conventional photography." Some hand work is still required, however. The machines, six of which have been built, have been used in "Life" color production for about a year.

On this insert the yellow is 133 line screen and the red, blue and black are 120 screens.



The scanning machine is a complex device making use of the latest electronic circuits. The surprinted schematic drawing below shows the working principles. The operator still needs a knowledge of color, and must judge copy and make adjustments for proper rendition of the original.



a lens and split into three paths, all having the same color characteristics. Conventional red, green and blue color separation filters are inserted in each of the three paths. The color characteristics of the light in each of these paths are therefore modified by the color characteristics of the spot on the color transparency and the particular color filter in question. These three paths of color separated light are then projected onto three photoelectric tubes which have the characteristic of producing a current proportional to the intensity of the light striking them. We see, therefore, that the color spot on the transparency has now been separated into three electrical signals. These three electrical signals then pass through a succession of electronic circuits which instantaneously perform the functions of color correction or masking, undercolor removal, and black separation computation. The end results of this succession of electronic manipulations are four electrical signals, the three colors and the black signal, which are applied to four devices called glow lamps. These glow lamps transform the varying electrical currents into varying light intensities which are subsequently used to expose the four process films. Scanning the whole picture is accomplished by rotating the drum carrying the original color transparency and the process film, and advancing the rotating drum along its axis with respect to the original spot of white light on the color transparency and the four spots of light produced by the glow lamps. The entire scanning process takes one hour and five minutes for an 8″ x 10″ subject scanned at 250 lines to the inch. This time is doubled when the scanning is done at 500 lines to the inch.

First and foremost, the Time color scanner in its present form has been designed specifically for the production of continuous-tone, three-color and black separation negatives from transparent copy in the form of Kodachromes, Ektachromes, etc. The separations taken from the machine are the same size as the transparent copy scanned. The scanner may now be used at a scanning pitch of 250 or 500 lines to the inch. This allows a blow-up after scanning of 1½ to 1 in the case of 250-line scan, or 3 to 1 in the case of 500-line scan. These blow-up figures are based on experience with *Life* editorial copy. In cases where extremely fine detail is of the utmost importance in the printed picture, the 250-line scanned separations should be limited to 1 to 1 reproduction and the 500-line scan separations to 2 to1 blow-up.

Color transparency enlargement is necessary before the scanning process in cases where the original transparency size is too small for direct scanning at either 250 or 500 lines and where the printed reproduction will exceed the allowable blow-ups as stated above. At the present level of technical development this is now handled by enlarging the original transparency onto Ektachrome film. The techniques for retaining the color values of the original copy in the color enlargement process have been brought under control, and as a matter of fact, the enlarged color transparency in many cases is a better color reproduction of the subject than the original color transparency. In addition, such a technique allows the art

(*Continued on Page* 105)

NALC officers (L. to R.) are: Edward W. Harnish, Boston, president; Anthony Capello, Philadelphia, 1st VP; H. H. Johnson, Cleveland, 2nd VP; John F. Maguire, New York, treasurer; and Wm. O'Holleran, Chicago, Exec. Secy.

Boston Committee (L. to R.): Phil Shakespeare, Merrill N. Friend, Charles E. Mallet, Tom Tierney, James Beldotte, W. S. Law, and Edward W. Harnish. This group handled the convention plans.

Litho Club Convention Draws 250 to Boston

WITH approximately 250 persons in attendance, the fifth annual convention of the National Association of Litho Clubs, held in Boston, April 14 and 15, indicated that this relatively new association is growing larger and more active each year. The two day program featured speakers dealing mostly with technical or production subjects, while business centered around plans for the 1951 convention, to be held in Cleveland, and the election and installation of new officers.

Edward W. Harnish, lithographic consultant, and secretary of the Boston Litho Club, was elected president of the NALC to succeed James J. Spevacek, Western Electric Co., Printing Div., Chicago who had served the traditional one year term. Mr. Harnish had served the previous year as first vice president. Anthony Capello, Philadelphia, was elected first vice president from the post of second vice president, and this vacancy was filled by Herbert H. Johnson, Cleveland, who had served as treasurer. John F. Maguire, New York was elected treasurer, and William O'Holleran, The Meyercord Co., Chicago, who has served since November as executive secretary, continues in that post. A motion to make this latter office an appointive one by the president, is to be acted upon later.

The invitation of the Cleveland Litho Club, through its president, Douglas Smith, to hold the 1951 convention in that city, was accepted by the NALC, and the time was tentatively set for the last weekend in April. The hotel was not announced.

A plaque was presented to William J. Stevens by Mr. Spevacek in tribute to Mr. Stevens' service as NALC executive secretary, a post from which he resigned in November because of the pressure of other work. A plaque was presented later to Mr. Spevacek as retiring president, by Alfred F. Rossotti, Rossotti Lithographing Co., North Bergen, N. J., who was the first NALC president.

Other convention business included the formal welcome of the Omaha Litho Club to the national organization. No action was taken on the official entrance of the Dallas Litho Club because the latter's constitution is not yet complete.

The convention was opened with a welcome from James F. Beldotte, president of the host organization, the Boston Litho Club. Mr. Beldotte praised the NALC as a force welding together the growing list of litho clubs across the country. NALC member clubs, with Dallas, number 17 clubs and at least one more, Rochester, has been formed (Pg. 88). Mr. Beldotte also praised the members of the Boston convention committee and its chairman, Charles E. Mallet of Rand Avery-Gordon Taylor, Inc.

President Spevacek called the roll of member clubs, and representatives of all 17 were present except for Dallas. In most cases there were three official delegates supplemented by numerous unofficial visitors.

The first outside speaker was Dr. Arthur C. Hardy, professor of optics

Opposite page: 1. William J. Stevens, former NALC executive secretary receives a framed resolution from Pres. James J. Spevacek for Mr. Stevens' service to the association. 2. L. Brent Frey, Baltimore; Anthony Capello, Philadelphia; and George A. Frank, Pres., Baltimore club. 3. Elwood Osberg, Twin City Club; with John Murphy, Ken L. Burt and Erwin Stoetzer, all of Detroit. 4. James R. Houdeshall, Pres., Dayton club; Floyd A. Phillips, Dayton; Frank Petersen, Cincinnati; and Louis J. Weiss, Pres., Cincinnati club.

5. Roy Tenge, Pres., Milwaukee club; Ernest Blaha, Milwaukee; and Oliver J. Schuermann, St. Louis. 6. Sol D'Allessandro, H. H. Johnson, Andy Balika, Douglas Smith, and William Stone, all of Cleveland. (Mr. Smith is president of the Cleveland club.) 7. From Chicago: Lester Von Plachecki, William O'Holleran, Mr. Spevacek, H. J. Schultz, Carl J. Erickson (club president) and Charles D. Kayser, Jr. 8. New Yorkers: Larry Littmann; Alfred F. Rossotti, past NALC Pres.; Jacques Tisne; Angelo Pustorino; William J. Stevens, past NALC president and Exec. Secy.; and John F. Maguire, N. Y. club president. 9. From Canada: Gavin C. Clark; Reg Byford, Pres. of Ontario club; and Walter Thompson. 10. W. B. Dulak, Conn. Valley; Ted Makarius, New York; Michael Pagliaro, President, Conn. Valley club; John Kronenberg, Boston; and Edson Pierce, Conn. Valley.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CONVENTION SPEAKERS

John L. Kronenberg Douglass E. Murray Charles F. Geese James F. Beldotte Dr. Arthur C. Hardy

and photography, Massachusetts Institute of Technology. Dr. Hardy explained the historical development of the theory of three color printing, reviewing the work of Maxwell in 1855. He discussed how filters work in color separation, and then, with slides, explained the color separation scanning device which he has helped to develop.* This is one of the tools now available for measuring color with photocells and for making color corrections through electronic computations, he said. He explained how the black separation is added to the three colors to produce balanced separations. "Every dot now can be tailor made," he declared. The device is not on the market, but is being tested in the laboratories of International Printing Ink, he said.

During the question period which followed, Dr. Hardy told of some of the differences between his device and the Time-Eastman scanning machine. The Hardy machine uses the principle of flat scanning, and will work from opaque or transparent copy, while the Time machine uses the cylindrical scanning principle and works from flexible transparencies, only. The mechanics of scanning are well known, he said, and make little difference in the final result.

Saturday morning, following committee reports and other business, Michael H. Bruno, research manager, Lithographic Technical Foundation, Chicago, discussed "Tone Control in Platemaking." He explained that there is fairly good control in the photographic step of the lithographic process, but that platemaking and presswork are not so foolproof. The Foundation's research program centered on the platemaking problem first, and "we now have the problem of platemaking licked," he said. Any platemaker can now make plates which will run on any press provided it is in proper adjustment, he declared. He outlined four steps which have made this possible: metal surface treatment with Cronak and Brunak processing; removal of residual coating, which has brought the quality of surface plates to a level equal to deep etch plates; improved desensitization with cellulose gum; and the use of the Sensitivity Guide in exposing and developing plates. The Foundation now has literature explaining the use of all of these steps. In conclusion, Mr. Bruno urged platemakers and pressmen to work together, with the platemaker using the best methods known, and the pressman using as little acid as possible in the fountain solution.

A long question period followed Mr. Bruno's talk. An audio-visual demonstration, with slides and a wire recorded talk, on the Sensitivity Guide, was presented.

A Saturday luncheon brought a large crowd to hear Wallace Strathern, sales manager of the New England Coke Co., speaking on "Standing Still or Going Ahead." He declared that everyone is a salesman—the employee must keep selling the boss, and the employer must sell his employees on himself and the company. As such, "we need the ability and willingness to speak from the other fellow's viewpoint," he said. We have to know what attracts the other fellow, Mr. Strathern emphasized. In summing up, he said that successful selling ideas are so simple that sometimes they aren't obvious to the average business man.

Charles F. Geese, photomechanical consultant to Time, Inc., presented a series of slides showing the processing of the Time bi-metal lithographic plate, and also showing the Time-Eastman color scanning machine and the Faeber-Dutro offset press. He also showed a motion picture on the production of *Time* magazine to illustrate the tight production schedule which does not allow for any experimenting with unknown processes. A great deal of progress has been made in offset, but it is not quite ready for a large production job such as that involved with *Time* and *Life*, he indicated. The developments from the *Time-Life* laboratory at Springdale, Conn., will be available to commercial lithographers eventually, he said. At present the plate is being tested in four commercial plants, and the scanner is being used in the production of *Life* color plates. (This scanner is described more fully on page 28.)

Douglass Murray, sales manager, Webendorfer Div., American Type

(*Continued on Page* 105)

* This color scanner was described in the article "Color Correction by Electronics," by J. R. Gunther, *Modern Lithography*, October 1949.

Point of Purchase Symposium and Exhibit Attended by 10,000

Edward K. Whitmore

THE whole gamut of point-of-purchase advertising material, most of it lithographed, was shown by nearly 50 exhibitors, and viewed by some 10,000 visitors to the annual Point of Purchase symposium held at the Waldorf-Astoria, New York, April 11 and 12. It was the fourth and largest to date of the annual shows, and the Point of Purchase Advertising Institute, sponsor, reported about 60 percent more exhibits than in 1949. Motion, many types of illumination, three-dimensional items, and speaking displays, predominated in the showings.

The highlight of the affair was the symposium luncheon held on April 12, and attended by 1,200 persons. "Advertising that doesn't make use of point of sale material wastes its effectiveness," declared Arthur H. Motley, president of Parade Publications, New York, and board chairman of the National Sales Executives, Inc., a luncheon speaker. He emphasized that point of purchase materials should be tested the same as advertising copy is tested. "More practical research is needed," he added. The material has to be sold in terms of what it will do to make sales and profits for the advertiser and his dealers, Mr. Motley said. He cited a number of instances where sales had been increased as much as 600 per cent through the use of tie-in point of sale material.

John E. Wiley, chairman of the board, Fuller & Smith & Ross, presented, with slides, "1950 method of moving goods to market." He was assisted by Murray Koff, Seagram Distillers Corp., R. H. McMann, Westinghouse Electric Corp., and John H. Faunce, Jr., Lukens Steel Co. Seven points were outlined, as necessary for maximum action at the point of sale: study and research; planning based on research; advertising based on plans and research; information to salesmen and distributors about research, plans and advertising; promotion of plans, advertising and research at all focal points along the line of sales effort; education of salesmen and dealers on plans, products and specialized sales efforts; and maximum use of point of purchase materials and helps at the retail level.

George P. Butterly, New York State Liquor Authority, in his remarks, said that the authority is conscious in all its rulings, that advertising is the chief tool of a competitive economy.

Edward K. Whitmore, president of Oberly & Newell Lithograph Corp., New York, was elected president of the Institute, succeeding John M. Palmer, of Palmer Associates, New York. Other officers elected were Walter J. Ash, Consolidated Litho Corp., Brooklyn, who served as convention chairman, 1st V. P.; Edward E. Peterson, Forbes Lithograph Mfg. Co., Boston, second vice president; Herbert Zipprodt, Zipprodt, Inc., Chicago, western vice president; Harry Fenster, I. Fenster & Sons, treasurer; and J. Kingsley Gould, executive secretary.

Exhibitors included:

Audio Displays, Inc., New York, Frank S. Newman; Austin & Austin, Inc., New York, Harold J. Austin; Betts & Betts Corp., New York, J. S. Yarrow; Consolidated Litho. Corp., Brooklyn, Walter J. Ash; Davidson-Hansen, Inc., New York, W. L. Davidson and L. Moorhead; Linson-Freeman Co., Inc., New York, Gordon Simmons; Embosograf Company, Chicago 40, Ill., Wm. Swartz; Flashograph Sales Co., Inc., New York, Robert Sironi; Forbes Litho Mfg. Co., Boston, Mass., Wyatt McC. Benz; Gardner Displays, New York, John White; L. A. Goodman Mfg. Co., Chicago, Ill., L. A. Goodman; Grand Haven Harber Industries, Grand Haven, Mich., H. T. Parker; William Melish Harris, New York, Wm. Melish Harris; Haugan Advertising, Inc., Detroit, Mich., R. V. Wayne; Igelstroem-Oberlin, Inc., Massillon, Ohio, R. E. Oberlin, Sr.; Industrial Litho. Co., New York, Emil Martocci; Ketterlinus Litho. Mfg. Co., New York, Paul Lang; Kindred, Mac Lean & Co., New York, Raymond R. Multord.

Also: Lear International Export Co., New York, Al. Landes; Lutz & Sheinkman, New York, W. H. Elliott; Magill-Weinsheimer Co., Chicago, Ill., Jud Mulford; McCandlish Litho. Corp., Philadelphia, W. B. Wilson; The Meyercord Co., Chicago, Willard A. Rapp; Mounting & Finishing Co., Brooklyn, George Rose; Niagara Litho. Company, Buffalo, Alfred Hailparn; Oberly & Newell Litho. Corp., New York, E. K. Whitmore; Palmer Associates, New York, Carl Bergmann; Carl Percy, Inc., New York, Carl Percy; Perfect Finishing Company, New York, Philip A. Berg; Perfo Mat & Rubber Co., New York, Maurice Cook; Point O'Sale Advertising, New York, R. H. Leonard; Rode & Brand Div., New York, Alfred Rode, Jr.; Snyder & Black, Inc., New York, C. Kaye; W. L. Stensgaard & Associates, Chicago, Ralph Mason; Sweeney Litho. Co., Belleville, N. J., W. H. Glover, Jr.; Tauber's Bookbindery, New York, John Hayes; Topflight Tape Company, East Orange, N. J., Roy Dent; Transichrome Corporation, New York, Arthur Govan; U. S. Printing & Litho. Co., Cincinnati, Howard Minnich, John Lambie; U. S. Electronics Corp., Los Angeles, H. J. van Buskirk; Stanley Wessel & Company, Chicago, Olaf K. Tackle; Window Advertising, Inc., New York, Walter W. Reid; Zerbo, Inc., New York, A. Zerbo; Zipprodt, Inc., Chicago, Ill., R. J. Watt. ★★

TALI officials: (L. to R.) Marvin C. Rogers, president; Arthur W. Cornell, second vice president; George W. Wilhelm, secretary-treasurer; Michael H. Bruno, retiring president; Frank Preucil, and R. M. Schaffert, directors.

200 Attend TALI Meeting

Second annual meeting held in Rochester, N. Y., April 24-25

THE second annual meeting of the Technical Association of the Lithographic Industry, held April 24 and 25 in the Hotel Sheraton, Rochester, N. Y., surpassed expectations in interest and attendance, officers reported following the two-day, packed sessions. One hundred fifty-five members and guests registered, and in addition, 50 students from the printing and publishing courses of the Rochester Institute of Technology attended various sessions.

A full program, consisting of 17 technical papers, and several other talks, filled the two days and drew almost 100 percent attendance in the meeting room.

Marvin C. Rogers, director of research of R. R. Donnelley & Sons Co., Chicago, was elected president of TALI, succeeding Michael H. Bruno, research manager, Lithographic Technical Foundation, Chicago. Paul W. Dorst, consultant, Cincinnati, was named first vice president; Arthur W. Cornell, Forbes Lithographic Mfg. Co., Boston, second vice president; and George W. Wilhelm, Rand McNally & Co., Chicago, secretary-treasurer. Directors are Mr. Bruno; Frank Preucil, Gerlach Barklow Co., Joliet, Ill.; and R. M. Schaffert, Battelle Memorial Institute, Columbus, Ohio.

On invitation from several representatives of the Battelle Institute, the TALI group voted to hold its 1951 meeting in Columbus. The dates are April 30 and May 1. Other business included reports by Secretary Wilhelm in which he told the audience that TALI membership now totals 152 active members.

Abstracts of Talks

Abstracts of the 17 papers presented at the Second Annual meeting of the Technical Assn. of the Lithographic Industry, are published this month beginning on page 47.

The sessions were tightly scheduled, and luncheon was served each day in a room adjoining the meeting hall. An informal "get-together" was held on Monday evening and included a showing of an Eastman Kodak motion picture showing the role of photography in industry. On Tuesday evening a banquet featured a talk by C. E. K. Mees, vice president in charge of research, Eastman Kodak Co. Dr. Mees, in tracing the development of the scientific method and the emergence of modern research, pointed out that many ancient scientists made profound discoveries, but had no way of communicating them beyond their own acquaintances. "There was no mechanism whatever by which the scientist could find an audience," he observed. After the invention of printing, scientific works could be reproduced and spread, and with this spread of knowledge, men's lives were changed, and technology began to advance.

Today the printing industry ranks as one of the nation's largest, Dr. Mees stated, but added that because it is composed of many small plants, there has been no research commensurate with the industry's size. "If the graphic arts are to develop as other industries have, they must carry out organized research, he declared. Reviewing what has been done, he said photographic research has advanced far in the last 35 years; little has been done in photoengraving research; there is still room for more research in the press field; considerable research has been done on ink but much remains to be done in coordinating this work with other research; and much research remains to be done on the problem of paper on the press.

Lithography is now at the stage, he said, when many results of research are now being announced, and are stimulating more intensive work. But the very success of lithography points to the need of intensive work, he asserted.

There is a need in the graphic arts for an over-all coordinated research organization, he said, which should

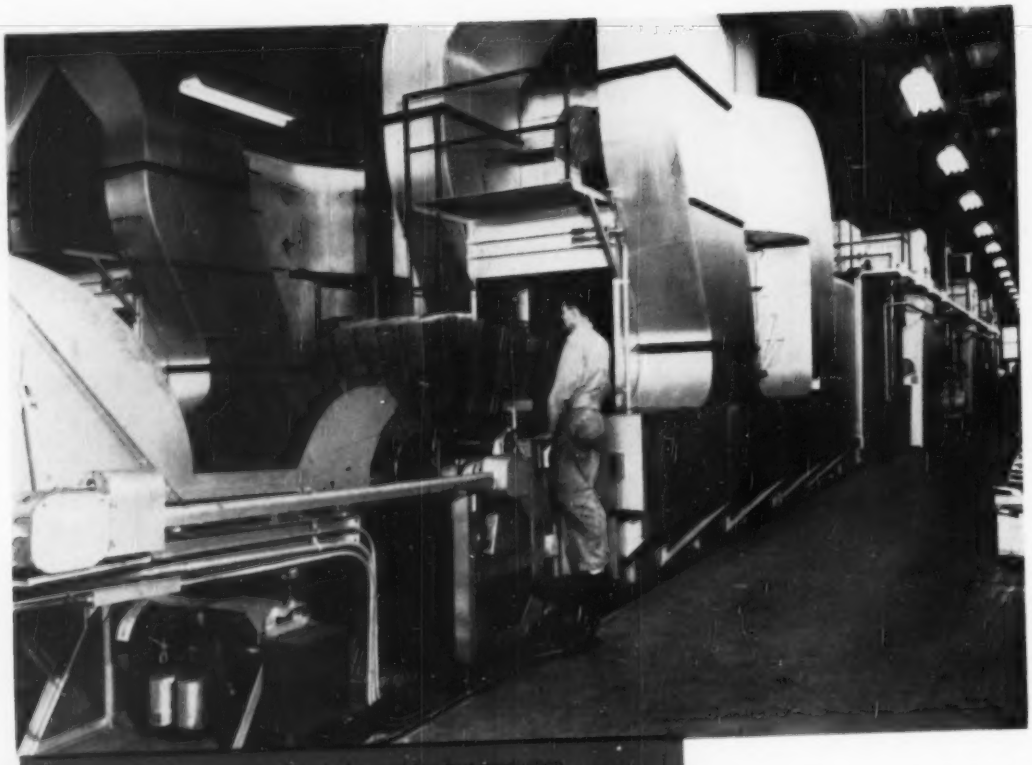
be supported by all branches of the industry. While he was not at all sure that such an organization would materialize, Dr. Mees added that failure to organize such a group would not stop progress.

A highlight of the banquet was the first annual TALI award for outstanding service to the industry. Robert F. Reed of the Lithographic Technical Foundation was honored with this recognition, and was awarded a copy of the new Rand McNally World Atlas, which was the first general reference atlas to be produced by offset lithography, and won a national award for its design. Copies of the Atlas also were awarded to retiring president Bruno and to Dr. Mees.

While the banquet concluded the formal program of the meeting, many men stayed over the third day to visit four points of interest in Rochester. Tours for these men were arranged with the Rochester Institute of Technology, Eastman Kodak Co., Stecher-Traung Lithograph Corp., and Eastman House, the photographic museum and exhibit hall.

John McMaster, of the Eastman company was in general charge of arrangements for the meeting.★★

Top Row, L. to R. Marvin C. Rogers, TALI president; Michael H. Bruno, retiring president; George W. Wilhelm, TALI secretary-treasurer; John McMaster, Eastman Kodak Co., Rochester, and Herbert Leedy, Harris-Seybold Co., Cleveland. Dr. C. E. K. Mees, Eastman Kodak research head and banquet speaker receiving award from President Rogers. Second row: Robert F. Reed who was chairman of several sessions; a demonstration of the Eastman Acetate plate unveiled at the meeting; Herbert P. Paschel, consultant, New York, and John Skahill, Roberts & Porter, New York; a demonstration of an offset duplicating machine printing without a dampening system. This was part of the presentation of Charles H. Van Dusen, Jr., Addressograph-Multigraph Corp., Cleveland, shown at right of photo. Lower row: R. M. Schaffert, Lewis E. Walkup, Battelle Memorial Institute, Columbus, Ohio, and John Hayashi, Haloid Co., Rochester, demonstrating litho platemaking with the Xerography process; C. M. Dickinson, R. Hoe & Co., New York; Charles Beutner, Sigmund Ullmann Co., Chicago; and his son, Grant Beutner, Lithographic Technical Foundation, Chicago; Robert J. Lefebvre, Government Printing Office, Washington; Peter A. Rice and Harold Gegenheimer, Printing Machinery Div., Electric Boat Co., Groton, Conn., and H. P. Deters, Edwards Brothers, Inc., Ann Arbor, Mich.



The delivery end (above) of one of the four production lines which produce some 1,500,000 small citrus fruit cans per day. (See also the photograph on front cover.)

Frozen Juice Market Enlarges Florida Metal Litho Activity

American Can Co's plant in Tampa, said to be South's largest, is slated for 100 percent expansion by next year

AMERICAN CAN COMpany's new plant at Tampa, Fla., includes what is said to be the largest metal lithographing plant in the South. C. E. Cummings, plant manager, said the unit, of the most modern type, is also slated to be doubled in size by early 1951 because of the popularity of Florida's frozen concentrated citrus juices.

The new installation, which began operations early this year, occupies some 25,000 square feet of floor space at the can company's factory at First avenue and 22nd street, Tampa. This space is now scheduled to be more than doubled in size with the addition of 26,000 more square feet of floor space at the 26th street side of the factory, Mr. Cummings said.

These new facilities represent the American Can Company's faith in the potential of the market for Florida's frozen concentrated citrus juices, he declared, and are a direct outgrowth of the company's production of the first six-ounce cans used for the mar-

keting of the frozen concentrated orange juice for which the Florida State Citrus Commission holds the public service patent.

The lithographing facilities include a series of four press and drying oven lines. The first unit of the new installation is used for the white coating and the inside enameling of sheets of tin plate. The sheets, measuring approximately 26 by 27 inches, are fed through a Dexter sheet feeder, a Wagner spot coater, a Ross drying oven, measuring 127 by 18 feet, and are then stacked automatically. Each minute that the unit is in operation, it imprints 92 sheets of tin plate, each of which produces 24 of the six-ounce cans used for packing frozen concentrated citrus juices. The inner enamel was developed by the Canco research laboratories to meet conditions encountered in the packing of highly acid citrus juices.

The second and third units of the lithographing installation consist of Dexter sheet feeders, two single Hoe presses in tandem, one Wagner spot coater for varnishing the outer finish, two more Ross drying ovens and two automatic stackers. These units handle 75 sheets of tin plate per minute. These sheets, which have been white-coated in the first unit in this operation are imprinted with two colors and are varnished. At this stage of the operation, each sheet contains 24 colorful "blanks" of the six-ounce concentrate cans, bearing the labels and trademarks of the various concentrate packers.

The fourth unit consists of a Hoe single color press and other equipment similar to that used on the other lines. This latter unit is used primarily for coating and lithographing the ends of the six-ounce cans.

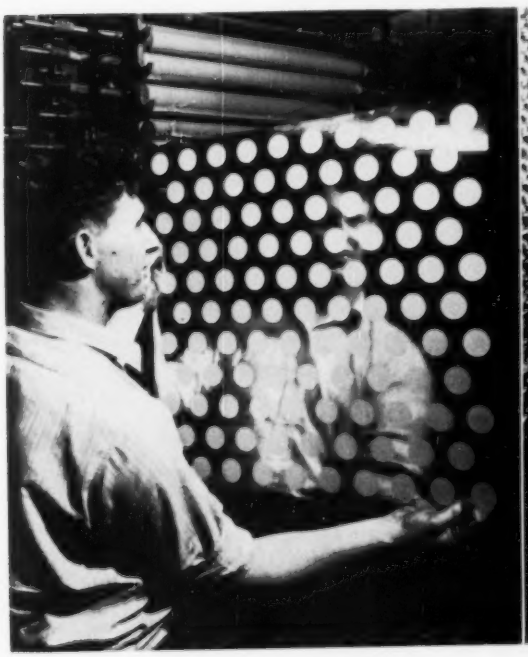
After the coating, lithographing, varnishing and enameling operations, the tin plate is conveyed to the can production lines where it is slit into body forms and taken through the high-speed machinery which transforms it into finished six-ounce cans at the rate of 400 per minute. One end of the can is left open. This end is applied to the can by special machinery in the plants of the citrus packers upon completion of the canning process.

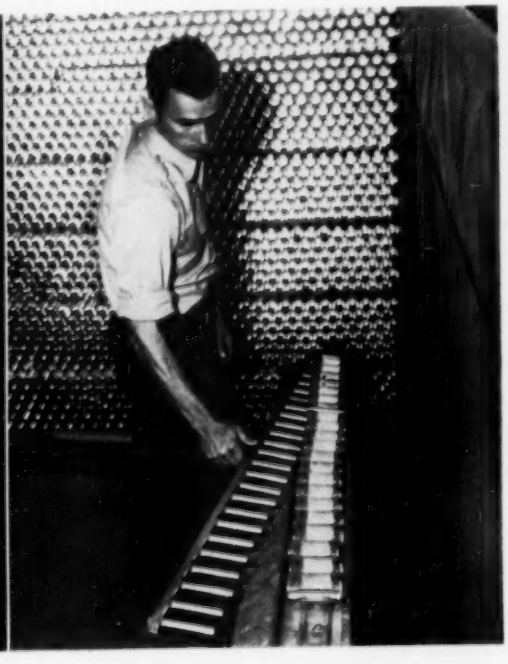
The four lithographing lines are manned by 24 Canco employees. Each of them had previously worked in the Tampa factory. They were selected on the basis of skill and merit to attend special six-months training courses at American Can factories in Atlanta, Savannah, Philadelphia, Boston and Richmond. At the conclusion of the courses, each became a lithographic apprentice.

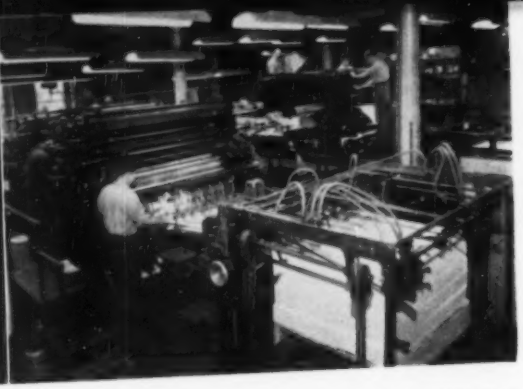
The lithographic installation is now operating on a basis of two shifts per day, and processes the equivalent of 2,500,000 cans daily.★★

Tinplate polkadot, an apprentice pressman holds a press sheet containing 105 coated ends for fruit juice cans. The first such can was manufactured in this plant only six years ago. Four production lines are now operating here.

Workers armed with special "rakes" stack 25 cans at a time in paper lined freight cars. The lithographing installation producing these cans now occupies about 25,000 sq. ft. of space, to which 26,000 are to be added in 1951.







Rhode Island Co. Marks 75th Year

LIVERMORE & KNIGHT CO., Providence, R. I., printers since 1875, and lithographers since 1903, this year join the ranks of lithographing companies which have passed their 75th birthdays. The company today ranks with the largest in New England, with its array of single- and four-color presses, up to 76".

The company has come into prominence in the industry in recent years through its pioneer work in the development of the Time-Life bi-metallic lithographic plate. "We have been extremely successful with this plate, which is giving us finer quality in printing, on anything up to 400 line screen work. And there is a tremendous advantage in extremely long runs from one set of plates," according to Richard B. Knight, executive vice president. "We are still cooperating and working very closely with Time in their research program for the graphic arts," Mr. Knight continued. "In back of our press equipment, of course, is the extensive platemaking facilities for making bi-metallic plates, as well as deep etch. They include an extremely large camera, taking up to a 50" halftone."

In addition to camera, platemaking and press equipment, a bindery produces many types of work except for case bound books.

The company at present owns and occupies the building at 42 Pine Street, which covers a city block.

Livermore and Knight today produces quality work in the lines of advertising, maps, textbooks, juveniles, and general printing material. The company was known for many years as a letterpress printing and advertising firm, but in the '20s the reputation for producing lithography began to develop. Since then the tremendous growth that has taken place has been primarily in the offset side of the business, Mr. Knight reports.

The company had its beginning in 1875 when a young man, Richard D. Knight, started a printing business in Providence with one small press. Some four years later, Charles Remington joined with him to form the company of Knight and Remington. Soon they were doing work for the engraving firm of Farmer, Livermore & Co. This relationship later led to the combination of the two firms into the Livermore and Knight Co. in 1883. They specialized in giving customers, through printed matter, every type of assistance needed in merchandising goods. In this approach to printing, they became one of the pioneers in creative advertising printing.

Howard Knight, a son of Richard D., entered the business in 1898, and became president in 1922 at the time of the death of the founder. Today he still holds this position.

Richard B. Knight is executive vice president, as mentioned earlier. Other company officers are: Harry H. Wetherald, and Edward J. Gately, vice presidents; M. Louise Shortell, secretary; and W. Richmond Wing, treasurer.★★

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TECHNICAL SECTION

ABSTRACTS OF TALI PAPERS

Presented at the Second Annual Meeting of the Technical Assn. of the Lithographic Industry, Rochester, N. Y., April 24, 25

(Report of meeting begins on page 36)

1. *Control Procedures for Lithographic Chemicals Manufacture*, C. L. Gillingham, Research Laboratory, Harris-Seybold Company.

The control of lithographic chemicals is a subject of which the average lithographer has only a limited knowledge and in which he may have only a minor interest. However, the quality of work turned out in a litho shop is affected directly by the uniformity of the chemicals used by the photographer, the platemaker, and the press room operator.

The control of lithographic chemicals may be broken down into three major classifications; control of raw materials, control of the manufacturing process, and control of the finished product. If control of any of the three classifications is neglected, the uniformity of the working properties of the finished product will invariably suffer.

The methods of control applied to the three major classifications can best be set up by the establishment of specifications.

Specifications on raw materials and finished products should designate the maximum and minimum tolerances of properties, such as viscosity and percent solids that have been found to affect directly the working characteristics of the finished product.

Specifications on manufacturing processes should designate the maximum and minimum tolerances of process variables, such as temperature and acidity, the control of which has been found to be vital to the manufacture of a uniform high quality product.

2. *Some Factors in Bi-Metal Lithography*, Marvin C. Rogers, Research Director, R. R. Donnelley & Sons Company.

The relative unreliability of albumin and deep etch lithographic plates when used for long runs, has led to intense interest and study of the bi-metal plate. The use of two metals in the litho plate surface was proposed nearly 50 years ago. Several reviews have been published by Mertle, Elton, Blau, and others describing the several proposals and their processing characteristics.

The bi-metal plate offers an opportunity for reliability on the press equivalent to that attained by letterpress processes. With the proper plate, giving improved plate life on long run jobs, it should be possible to reduce platemaking costs mainly through reduced makeovers. Short runs can be benefited only if quality is improved, and no substantial amount of evidence is yet available to show that equivalent quality cannot be attained by conventional plates.

Experimental results from nearly 15 years of intermittent studies of bi-metal plates have indicated that good results can be attained from the chromium-copper plate produced either from negatives or positives by the etching methods.

3. *Electro-Plating for the Printing Industry*, John B. Allen, Chromium Corporation of America.

Electroplating has solved many production problems in printing. Much experimental work has been done to determine the best metal and method of electro deposition for each application to give the desired results. The applications of electroplating in printing machinery and printing surfaces for letterpress, gravure and lithography are discussed, with emphasis on the practical results obtained. In lithography, electroplating has produced improvements in printing plates, ink rollers and drums, water rollers, and miscellaneous equipment on sheet- and web-fed presses. These improvements are discussed together with necessary precautions.

4. *A New Chromium Long-Life Lithographic Plate*, D. N. Adams, Research Laboratory, Harris-Seybold Company.

An application of the deep etch process to the preparation of a chromium lithographic plate is discussed. Descriptions are given of the type of plate used and the chemicals utilized

in the various steps of plate preparation.

The plate is made by electrodepositing a relatively thick layer of chromium on a suitably grained zinc plate. With the exception of the etch which dissolves the chromium, all the chemicals required are those normally employed in preparing deep etch plates on zinc by the gum process. The chromium etch, though of essentially usual composition, contains a metal catalyst which readily activates chromium to permit controlled rates of reaction relatively unaffected by temperature changes.

5. *Technical Education in the Lithographic Industry*, David M. Cumming, Rochester Institute of Technology.

The overwhelming need of the offset industry today is for well trained technicians, craftsmen and executives. The highly developed techniques of modern offset lithography call for more than the ordinary grade of personnel. There must be systematic selection and training of those who are to fill the ranks of the offset industry in the executive, technical and the operative spheres.

Haphazard training has to be avoided and a program built up which will ensure an adequate flow of trained personnel for this rapidly advancing and expanding industry.

A brief survey is made of the problems confronting the modern school of lithography, problems of staffing, equipment, teaching methods and the difficulties which confront those endeavoring to provide an adequate training program geared to the times.

Comparisons are drawn between principal types of training centers such as Technical Institutes, Trade Schools, In-plant Training Establishments, etc. and the function of each type discussed.

There is a tremendous need for more and even better centers for training the offset men of the future, and the industry must give urgent and early consideration as to how the problem can be tackled best.

6. *Color Control in Lithographic Printing*, Louis D. Pollner, Research Associate, Lithographic Technical Foundation.

During the past year the Lithographic Technical Foundation investigated the present status of color control in lithographic printing. Several surveys of commercial runs were made, involving wet and dry color measurements of sheets picked at intervals during each run. The measurements were made with the Hunter Color and Color Difference Meter and the Photovolt Reflection Meter. The data on variations throughout the run indicate the control which can reasonably be expected in printing solid colors and offer a preliminary guide to setting of maximum color tolerances, subject to the experience of other investigators. The study of the variations over individual sheets showed that certain patterns might exist during each run, but revealed no basic pattern for all runs. The extent of color change upon drying was also measured.

7. *The Control of Halftone Dot Patterns*, William P. Greenwood, Research Laboratory, Forbes Lithograph Mfg. Company.

This paper attempts to demonstrate and explain the color changes noted when halftone dot patterns are superimposed in different ways. Prints have been pulled of process colors with the dots in exact register and exactly out of register at the same screen angle and the color differences analyzed.

The effect on superimposed patterns, at conventional screen angles, of lateral and forward movement of the plate have been checked.

The effect of printing colors, differing in value, at the same screen angle with regard to color changes and pattern effects has been investigated.

All of these phenomena were demonstrated through the use of large colored dot patterns and the color analyses were described through the use of slides.

8. *Control of Tone Reproduction in Halftone Negatives*, J. A. C. Yule, Research Laboratory, Eastman Kodak Company.

In all halftone work it is customary to combine several exposures—for instance, a highlight, a detail, and a flash exposure. The effect of these combined exposures on tone reproduction has been understood only in a qualitative way. Formulas for predicting the resulting tone reproduction curve quantitatively have now been worked out, and are shown to check well with experimental results.

Based on this theoretical work, a new and more accurate system of exposure determination for halftone negatives has been worked out, and an exposure guide has been designed. Methods of control of tone reproduction with the magenta contact screen by highlighting exposures and still development are described.

9. *Offset Duplication Without a Separate Dampening Roller*, with demonstration, C. H. Van Dusen, Jr., Chief Chemist, Addressograph-Multigraph Corporation.

In the field of office duplication the planographic offset process possesses great flexibility and produces superior copy but requires a somewhat more highly skilled operator than do other methods.

A means of maintaining the ink-water balance automatically on an offset duplicator would greatly simplify the operation and much work has been done in an effort to accomplish this by using ink-fountain solution emulsions in the place of ink, but this has not been too successful.

Another way of accomplishing this objective has just recently been achieved. Ink and fountain solution are fed to the form through the same train of rollers from two separate fountains. By this method, the balance is maintained automatically over a wide range of master materials, ink coverage and temperature-humidity variations. All of the rollers in the train are covered with ink but there is no apparent emulsification.

It would appear that the water is present in a thin continuous film on the ink film and when the form roller contacts an imaged area on the form

the water is forced away and ink deposited, but when the form roller contacts an un-imaged area the surface is kept free of ink by the deposition of a film of water.

10. *Air Conditioning of the Lithographic Plant by Means of the Glycols*, Karl Davis Robinson, Consultant.

During the war, The Research Corporation developed the use of triethylene glycol for dehumidification. Engineering data has recently been completed which enables analysis (the subject matter of this paper) of possible applications in air conditioning the lithographic plant.

Equipment to handle the glycols, or other suitable organic liquid, controls relative humidity and temperature independently.

Operation is simple. Moisture is removed in the conditioner by a spray of the glycol-water mixture. Some of the glycol is pumped to the concentrator, where it is heated and sprayed in a current of air coming from and returned to the outside with moisture evaporated from the glycol. The concentrated glycol is then returned to the conditioner.

Control of heat in the concentrator by a humidistat in the conditioned space determines concentration of the glycol, which in turn determines the quantity of moisture absorbed in the conditioner, and consequently the relative humidity.

A glycol or glycol-refrigeration system has many advantages in the lithographic plant. For example, the customary 50 percent relative humidity is a refrigeration cost concession; 45 percent more nearly meets lithographic requirements and is practical with a glycol system.

With well or other water available at 60° to 70° F., no refrigeration is required. With cooling tower water, or other cooling means, refrigerator to control temperature can be kept to a minimum.

The lithographic requirements of each plant are individual, and no set pattern will apply. In general, initial cost will compete with all-refrigeration; and operating cost will be less, the saving increasing with the size of the installation.

11. *Type ACA Adjustable Speed Motors for the Lithographic Industry*, Bruce Jones, Application Engineer, General Electric Company.

The General Electric Company is actively interested in the problems of the Lithographic Industry. Recently a study was undertaken to determine what improvements could be made to the basic drive system of offset presses. The results of this study indicate that the type ACA motor and control is a natural application for driving these presses and offers several advantages over other type drives.

During the past year many of the papers presented at last year's TALI meeting have been published here. During coming months more TALI papers will be published in full as they become available.—Editor.

The press operators have generally always been satisfied with direct current (d-c) drive. Today we find that very few shops have direct current available. Converting the available alternating current (a-c) supply to d-c requires auxiliary equipment and is expensive. A wound rotor motor with secondary control is a bulky equipment item, with inherent poor regulation characteristics. The type ACA motor operates directly on the a-c lines and has a very small control box that can be press mounted.

During this study the functional control requirements were carefully analyzed. Additional information concerning ease of adjustment and the need for better speed regulation was determined by talking with press operators and press manufacturers. Fast acceleration to a preset speed and quick return to a consistent slow-down speed, are important considerations in a high production shop. Some operators have expressed a desire for a fine degree of speed adjustment over more than a 2:1 speed range.

The type ACA motor and preset speed control were found to offer all of these advantages. The inherent speed regulation of this motor is comparable to a shunt wound d-c motor. The printing speeds can be adjusted in small increments over the entire 3 to 1 speed range. If necessary the motor can be offered with a 6 to 1 or a 20 to 1 speed range. The type ACA motor and control offers several other advantages, when compared with a wound rotor motor drive, that are favorable to both the press manufacturers and press operators such as lower installation cost, higher operating efficiency and reduced maintenance cost. Trial installations of the type ACA motor and controls on offset presses have proved to be very satisfactory.

12. *Control Techniques for Photoprinting Operations in Photoengraving*, D. J. Byers, Assistant Supervisor, and L. E. Vaaler, Research Engineer, Graphic Arts Research Division, Battelle Memorial Institute.

Control of the photoprinted dot size is important in photoengraving because variation in the amount of dot spread obtained during photoprinting complicates the etcher's task. The photoprinted dot for a certain dot size in the negative can vary greatly depending upon the length of exposure, development, age of the photosensitive material, humidity, etc. All these factors should be controlled to provide a reproducible photoprinted dot size. In actual practice such control would be difficult to achieve.

Essentially the same problem of controlling dot spread confronts the lithographer. However, procedures have been developed by L. T. F. for controlling photoprinting operations in lithographic plate making. In principle some of these procedures are applicable to other photoprinting operations, such as in photoengraving. Experiments carried out at Battelle Memorial Institute under the sponsorship of Photo-Engravers Research Inc., have shown that the L. T. F. sensitivity guide can be successfully adapted to photoengraving.

13. *Application of Xerography to Lithographic Platemaking*, R. M. Schaffert, Supervisor, and

L. E. Walkup, Assistant Supervisor, Graphic Arts Research Division, Battelle Memorial Institute.

It has been demonstrated experimentally that the principles of Xerography can be used as an image-forming process for making lithographic printing plates. Paper offset-duplicating plates have been prepared by this process, and such plates have been used for runs up to 20,000 impressions with little loss of print quality.

Xerography involves a reusable, photosensitive plate, a resinous powder, and electrical attraction to form images. These images may be transferred to paper or to metal. Xerographic plates are sufficiently sensitive for exposure in conventional cameras. The production of an image by Xerography requires a relatively short processing time (usually about one minute), and does not involve expensive materials.

Xerography in its present stage of development is directly applicable to the making of offset-duplicating plates. However, several problems must be solved before the process can be used successfully to make plates for high-quality lithographic printing. Image sharpness must be improved; image-producing resins must be developed which are more suitable for lithographic images; and better methods must be developed for reproducing halftone images.

14. *Cellulose Acetate Offset Printing Plate*, Walter Clark, Research Laboratory, Eastman Kodak Company.

Description and demonstration were given of experimental offset printing plate based on use of hydrolyzed surface of special cellulose acetate sheet. Properties and applications were discussed and demonstrated. It appears specially suitable for moderate-run high-quality low-cost monochrome and black-and-white reproduction.

15. *A Preliminary Report on the Use of Radioactive Materials in Lithographic Research Work*, Paul J. Hartsuch, Lithographic Technical Foundation—International Printing Ink.

The successful use of radioisotopes in other fields of research suggested that they might prove valuable in studying the fundamental nature of the lithographic process.

A brief explanation is given of the preparation of radioisotopes in a uranium "pile," and how a typical radioisotope such as p32 disintegrates.

The equipment which has been acquired at Glessner House for radio-isotope work, is described. Methods for treating the lithographic plates with radioactive materials and the use of control plates to aid in the interpretation of the results, are explained.

Some of the early results of this lithographic radioisotope research program are mentioned and a possible future program is outlined.

16. *Fineness-of-Grind Gages: A Mathematical Analysis*, Wm. C. Walker, and A. C. Zettlemoyer, National Printing Ink Research Institute.

The draw down type fineness-of-grind gages are coming into ever wider use for the evaluation of printing ink texture. It is, therefore, important that the fundamental principles involved be understood.

Gages of this type are subject to two types of errors which affect their reproducibility. First, there are the errors arising from imperfect design and technique which can be reduced by careful study of the instruments. The reproducibility attainable by such work is limited, however, by the presence of a second type of error caused by the randomness of the distribution of the large particles through the ink. The mathematics of this source of error is treated and a limiting curve for the optimum precision of such instruments is obtained. This curve shows that exceeding high errors may be encountered by the unwary technician.

The particles found by this method of measurement are from the coarse ends of the particle size distribution curve for the ink under examination. The correlation of grind gage data with particle size distribution curves is worked out and discussed.

17. *Dynamics of Film Separation in the Printing Process*, Andries Voet, Director of Research, J. M. Huber Corporation.

The process of film separation during printing must be considered an impact process, in which not the force, but the energy involved plays the major part.

The energy of film separation has been measured accurately in a new apparatus under conditions closely approaching those existing on a press. The results indicate that at high speeds film separation cannot occur by simple liquid flow, but is caused by a rupture, against elastic forces. This is due to the fact that the flow response to stress in the exceedingly small period of separation at high printing speeds, of the order of 10^{-3} - 10^{-5} seconds, is completely overshadowed by an elastic response.

Direct evidence of the elastic character of film separation has been obtained by ultra-rapid micrography, while a quantitative estimate of the magnitude of the modulus of elasticity connected with the reaction to stress of the film has been made by means of vibrating piezo-electric crystals.★★

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Association Offers LTF Books

The Associated Printers & Lithographers of St. Louis has formed an association library of all the publications, currently available, from the Lithographic Technical Foundation. They are in paper bound volumes and are available to anyone calling at the association office.

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A Correction

In the article "Characteristics of Offset Blankets," by Robert F. Reed, in March *Modern Lithography*, an error was made in Table I, page 32. In the column headed "Survey No. 3, 1935" the second figure in the column should have been 87.5 rather than 8.75.

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Russians Invented Printing, Too

A Reuters story from Moscow last month reports that a Russian publication asserts that Russia invented printing a century before the Chinese and 400 years before Gutenberg.

TECHNICAL BRIEFS

From Current Literature in the Graphic Arts

Abstracts of important current articles, patents, and books are compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of interest to Lithographers. Either list may be obtained for 10 cents in coin or U. S. stamps. Address the Lithographic Technical Foundation, Research Dept., Glessner House, 1800 S. Prairie Ave., Chicago 16, Ill.

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Photography, Tone and Color Correction

***Making Hard-Dot Negatives.** Charles F. King. *Inland Printer* 124, No. 6, March, 1950, Pages 47-49 (3 pages). To reduce dot fringe on offset plates hard dot negatives are used. Two methods of producing such negatives are described. Instead of stripping in the halftone negative with the line work in the flat, a paste-up is made of the halftone glossy print together with the line work. This is shot in the camera as a straight line shot thus producing a hard dot negative. The second method is a variation of this technique which utilizes the Kodak Magenta Contact Screen to make the halftone glossy print. The continuous tone negative is placed in an enlarger and is projected through the screen on to a high contrast photographic paper. The procedure from here on is the same as described above. These methods of making hard dot negatives are especially advantageous to firms printing house organs, school annuals, etc., because they reduce camera and stripping time. The author claims that dot formation on plates made from these hard dot negatives is comparable to the dot formation in letterpress. He goes on to describe the effect of plate coating, plate preparation, graining, etc., on the quality of dots on offset plates.

***Masks—Deficiency Area No. 2.** Henry R. Long. *National Lithographer* 57, No. 3, March, 1950, Pages 30, 31 and 81 (3 pages). Second in a series of discussions on the problems of masking. This article deals with the problem of dyes in filters used in photographic color separation, in emulsions, and finally, pigments in printing inks. Listed in the article are the requirements for the ideal set of tricolor inks and mention is made of how litho inks react to different paper stocks. Mr. Long discusses the overlapping of transmission and absorption of filters and how masking helps to correct this phenomenon. He suggests that the litho artist is best qualified to make or at least pass judgment on the making of these masks.

***Ektacolor for Lithography?** Frank Preucil. *National Lithographer* 57, No. 3, March, 1950, Pages 34, 35 and 84 (3 pages). The features of Ektacolor which can make it useful in graphic arts color separation are the creation of three negative images in color and two positive mask images, with only three emulsion layers and a single developing step. Mask images are created in magenta and cyan layers which are opposite in sign and nullify any unwanted absorption of blue or green light. Mask color should not record during red filter exposure, but be effective during blue filter exposure. Orange mask in cyan layer should record with green filter. Brief mention is made of the improved Kodacolor and the Anscocolor color-corrected color-negative films. The article lists all governing patent numbers where details on the Ektacolor, Kodacolor, Anscocolor color-corrected color-negative process may be found.

***Halftone Screens for Lithography.** J. S. Mertle. *National Lithographer* 57, No. 3, March, 1950, Pages 40, 83 and 84 (3 pages). In this article Mr. Mertle discusses Kodagraph contact screens. The history of their manufacture and the first commercial users of the screens are mentioned. The processing procedure for the orange contact screen is given. In order to reduce the processing procedure required by the use of the orange contact screen and to produce a contact screen for direct use in the camera the magenta contact screen was introduced. This screen introduced during the war has since been used by the photoengraver as well as the photo-lithographer.

***Contrast Control.** Robert G. Patterson. *American Photo-Engraver* 442, No. 4, April, 1950, Pages 346-348 (3 pages). Because of the recent development of the three-point registration bar there has been a gradual reversion to the indirect method of color separation in photoengraving. A step outline of the procedure followed, using the registration bar, is described in the article. This tool is not manufactured on such a scale that it is available to many shops and therefore must be constructed from blueprints which are sent upon request.

Improvements in Photogravure, Letterpress Halftone, and Photo-Offset Colour Printing Processes and Apparatus Therefor. Harold Edward Alexander, Frederick Cook and Sun Printers Ltd. *British Patent No.* 631,274. Heretofore there has been difficulty in reproducing the combination of color transparency and lettering of a lighter color than the transparency. A projector-camera has been invented recently which will permit color separations to be made of such combination and allow the color of the lettering to be varied as desired. Variation in the color of the lettering is done by means of filters. Operational procedure, sketches of the device and claims of the inventor are described in detail.

Planographic Printing Processes

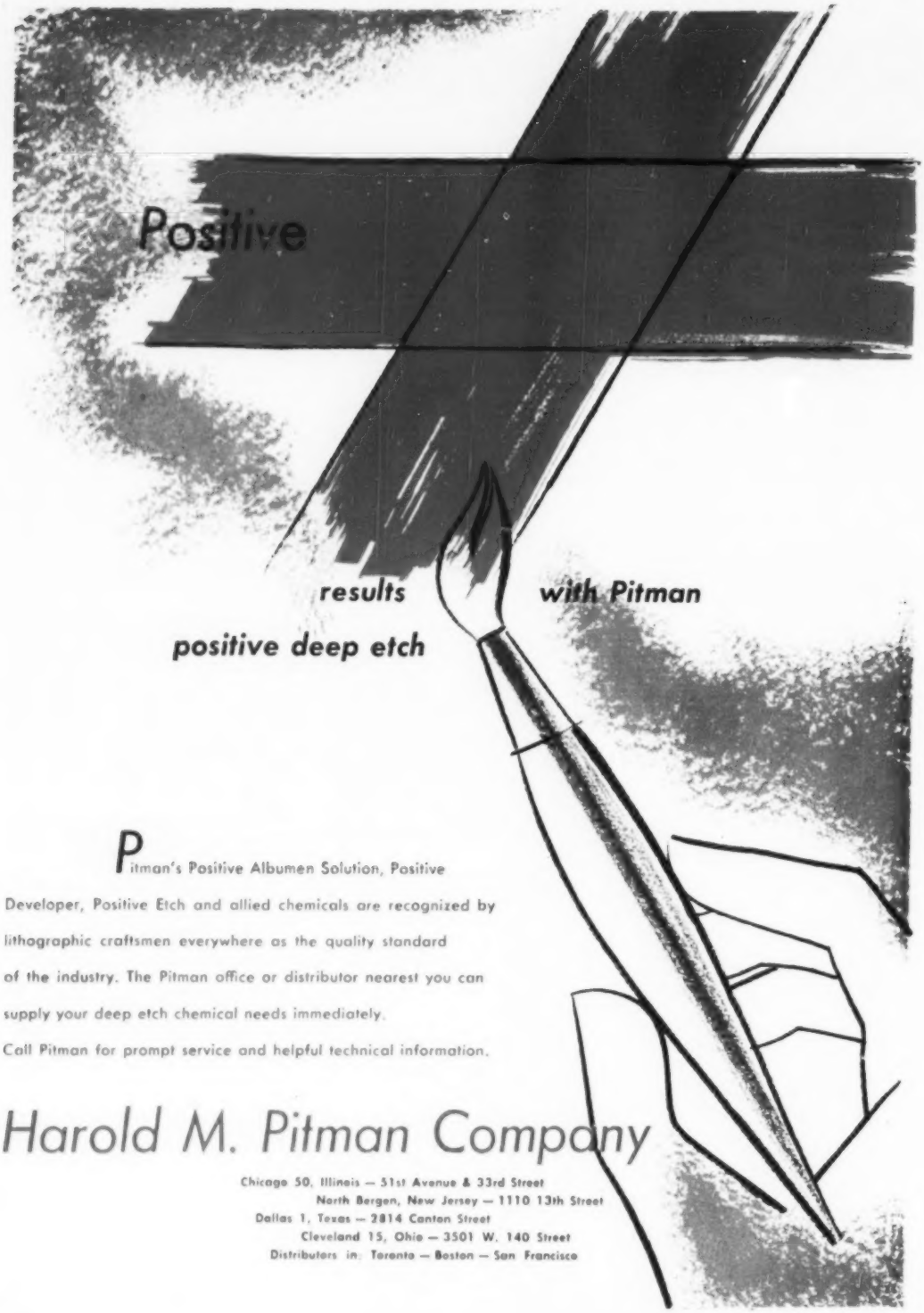
Method for Producing Printing Plates. Esselte, A. B. *British Patent No.* 631,858. In depositing chromium on a thin sheet metal carrier, preferably zinc, for use as a bimetallic plate, it is necessary to use high current densities. The thin sheet metal is therefore clamped on to a thicker base of a metal with a higher specific conductivity than zinc (e.g., copper) and then chromium plated. This eliminates the harmful effect on the thin sheet metal of the excessive heat generation due to the high resistivity and high current density. *Photographic Abstracts* 5, No. 2, February, 1950, Page 90.

***Offset Plate Care—The Technique of Gumming and Rubbing Up A Plate Explained.** Oscar Diehl. *Lithographers Journal No.* 34, No. 12, March, 1950, Pages 8 and 38 (2 pages). This is a summary of the various correcting techniques used on an offset plate during a run. Mr. Diehl emphasizes the need for overall cleanliness and development of a good gumming-up technique. He gives a detailed rub-up procedure together with several suggestions that make for good pressmanship.

New Methods for the Preparation of Planographic Plates. G. Engel. *Druckgewerbe*, 1949, (2(24), (Dec. 16), 419-20 (2 pages) (In German). The Ozasol negative plates (Kalle & Co.), designed for use on the R30 Rotaprint, but also usable on ordinary offset machines, consist of cellulose acetate films in which the non-image areas are hydrophilic (i.e., attract water). The foils are rendered light-sensitive with a chrome-free soluble organic compound, which becomes insoluble on exposure to light. Owing to the thinness of the film the negatives are as sharp as positives. Details are given of the manipulation of the foils and also of the Ozasol positive foil which is an aluminum foil plate. *Photographic Abstracts* 5, No. 2, February, 1950, Page 89.

***Observations on the Coates' Bi-Metal Plate.** W. Willerton. *Lithographer*, 1949, (1(10), 214 (Dec.). The use of the Coates' plate for tin-plating is discussed. Great care must be taken with the adjustment of rollers and damping. The film of ink should be as thin as possible. Gumming up when the machine is standing is recommended. *Photographic Abstracts* 5, No. 2, February, 1950, Page 90.

***Photogelatine — The Screenless Printing Process.** Summary of an ad-



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dress delivered by Walter Fredrick and Thomas D. Hook, before the Cleveland Club of Printing House Craftsmen, February, 1950. *Printing Equipment Engineer* 79, No. 6, March, 1950, Pages 29, 58 and 60 (3 pages). A brief, non-technical, step by step description of the Photogelatine or Collotype printing process.

Paper and Ink

***Paper, Ink and Print.** *Journal of the Oil & Colour Chemists' Association* 33, No. 356, February, 1950, Pages 69-82 (14 pages). A symposium including three papers and discussion. The papers were: 1. Developments in the Paper Industry, by Julius Grant, 2. The Trend of Development in Printing Ink Research, by R. F. Bowles, 3. Modern Printing Methods in Relation to Ink and Paper, by R. B. Fishenden. The discussion centered on the relation of ink consistency to printing performance, print quality, and drying.

***Paper Troubles in Offset Lithography.** Robert F. Keed. *Paper Trade Journal* 130, No. 12, March 23, 1950, Pages 36-38 (3 pages). This article, after a brief review of the history of lithography, describes in detail the qualities of paper necessary for good offset lithography, i.e., flatness (uniform moisture content), surface and internal bond strength, moisture resistance and freedom from chemical effect. It includes explanations and corrective measures for printing difficulties (curling troubles, static electricity, slow ink drying) caused by unfavorable humidity conditions.

***Resin Bonding of Hardwood Fibers In Offset Papers.** *Technical News Bulletin* 34, No. 3, March, 1950, Pages 42-44 (3 pages). Satisfactory printing papers were produced with furnishes containing 75% hardwood pulp using melamine-formaldehyde resin to give bond strength.

***Dried-In Strains in Paper Sheets and Their Relation to Curling, Cockling and Other Phenomena.** S. F. Smith. *Paper Maker* 119, No. 3, March, 1950, Pages 185-188 and 190-192 (7 pages). A study of causes of curl in coated and lined boards. Curl is caused by shrinkage when dried-in stresses are relieved by moistening and the sheet redried. Cockling is caused by non-uniform shrinkage of the sheet as it dries, due to non-uniform dried-in strains.

***The Role of Metallic Soaps in Film Formation.** R. F. Bowles. *Journal of the Oil & Colour Chemists' Association* 33, No. 356, February, 1950, Pages 97-113 (17 pages). Experiments are described that indicate (1) the rapid and strong absorption of metallic naphthenates at all interfaces; (2) that naphthenates of some metals act as flocculating agents and others as deflocculating agents; and (3) that zinc, lead and calcium soaps assist film formation in the presence of cobalt by promoting flocculation.

***Ordering Printing Inks.** Osborne C. Holland. *Interchemical Review* 8, No. 4, Winter 1949-1950, Pages 113-118 (6 pages) On any printing job the inkmaker should be advised beforehand, in detail, of all the important factors. Among them are: 1) Stock—whether it's paper, board, metal, plastic, etc.; 2) End use—protection against grease, hot wax, alkali; 3) Method of printing, including press type and speed; and 4) Order of putting down color.

***Ink Behavior.** *American Ink Maker* 18, No. 4, April, 1950, Page 31. A brief account of the discussion of ink behavior on roller systems at the National Printing Ink Research Institute February 24, 1950.

Lithography—General

***Uneven Printing.** *F & L Litho Letters*, March, 1950, Pages 1 & 2 (2 pages). While it is the general impression that on some presses the print is stronger on the gripper edge the heavier printing area does change under various conditions. The form rollers will build up a charge of ink while going over the gap if they are set too tightly to the distributing roller to give a dark streak along the gripper. Other factors are incorrect ink ductor timing; and tightening the blanket on the rear edge only, which decreases the pressure in the rear relative to that along the gripper. Overpacking causes blanket creep and is responsible for a heavy print at the rear end.

***Characteristics of Offset Blankets.** Robert F. Reed. *Modern Lithography* 18, No. 3, March, 1950, Pages 32-34 and 93, 95, 97, 99 (7 pages). Twenty specimens of American offset blanket materials were subjected to laboratory tests for performance and serviceability. Results of tests for stretch showed a remarkable improvement since the previous survey in 1935. Tests for hardness and resilience showed no correlation between these properties. Embossing tendency was measured by determing rates of absorption of boiled linseed oil and heat-set oil. No correlation was found between embossing tendency and hardness of the blankets. The blankets showed general improvement in their ability to remain tack and glaze-free during printing. Synthetic inks were found more harmful to blankets than linseed and heat-set inks. The order in which the blankets developed tackiness or glaze was the same for all the inks that contained driers.

Machine for Preparing Lithographic Or Other Printing Plates As Well As Rubber Sheets Used in Offset Printing. Johan Gunnar Lindmark. *Official Gazette* 630, No. 4, January 24, 1950. *United States Patent Number* 2,495,269. A machine for graining lithographic and other printing plates as well as rubber sheets used in the art of offset printing, comprising in combination a rotatable drum, means for rotating said drum at a high peripheral speed, means for removably securing the work on said drum, a housing for said drum, an elongated opening in said housing extending in parallel with the axis of rotaton of said drum, means for sealing said elongated opening, at least one sand blast nozzle extending through said elongated opening and directed towards said drum, means for moving said nozzle along said opening while maintaining said sealing means operative and suction means communicating with said housing and adapted to maintain a sufficient sub-atmospheric pressure therein to prevent dust from emerging into the surrounding locality.

***The ABC of Offset.** George Jos. Lenzer. *Printing Equipment Engineer* 79, No. 6, March, 1950, Pages 38 & 39, (2 pages). Part II. Type for use in offset reproduction must have certain qualities. It must be clean, printed with a dull ink, on a dull-coated blue white stock. Furthermore care must be exercised to keep copy clean. Proofreading is of utmost importance. Several methods of producing type copy for offset are described, such as typewritten, fototype, transparent proofs, and by means of the recently developed Photo-typesetting method.

Graphic Arts—General

Color-Matching. *Light and Lighting* 42, May, 1949, Pages 122-24 (3 pages). The Siemens Industrial Color-Matching Unit, which is described, provides an illuminant for matching colored products under conditions simulating natural daylight. The Unit employs two 2-ft., 40-watt blue fluorescent Sieray lamps and two 60-watt pearl single-coil gas-filled tungsten-filament lamps. The illumination from these lamps is blended and diffused within the Unit to give a spectral quality approximately equal to that of natural daylight at a color temperature of 6500° K. The lamps produce about 3000 lumens, which permits samples to be examined under intensities of 20 to 50 lumens per square foot. The Unit is operated by a 3-way switch block, which contains a separate switch for the fluorescent lamps. The rated life of the tungsten lamps is 1000 hours, and that of the fluorescent lamps is longer. *Monthly Abstract Bulletin* 35, No. 12, December, 1949, Page 496.

***Anti-Offset Spray On Printing Presses at Eli Lilly & Co.'s Indianapolis Plant.** H. Guy Bradley. *Printing Equipment Engineer* 79, No. 6, March, 1950, Pages 26 & 27 (2 pages). A modified arrangement of dry spray equipment which continues to eliminate more of the offset bugaboos is described. In the new equipment the powder quantity and the air pressure have both been reduced at least 50%. After running a sheet twice through a two-color press it is difficult to detect that it has been sprayed. This is a great aid to processing sheets which are to be varnished. The technical modifications of the device are covered briefly with diagramtic representations.

***Extreme-Sensiviity Color Comparator.** Instruments 23, No. 3, March, 1950, Pages 250 & 252 (2 pages). New "Color-Eye" color-matching instrument is five times more sensitive than the human eye, over a range of brightness of 10,000 to 1. The Color-Eye is equipped to measure tristimulus values relative to white on a percentage scale, and will take samples from ½ inch.★★

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Offset Books in L. A.

The Los Angeles Printing Industries Assn. now offers for loan from its library books and pamphlets on offset lithography, the association has announced.

•

Charles Opens New Plant

A new litho shop at 37 W. Third St., New York recently was opened by Charles Offset Co. The company formerly was located in the midtown area.

Chromium Etching for Poly-Metallic Plates

From "Research Progress," No. 17, to be issued soon by the Lithographic Technical Foundation

ONE development of the Lithographic Technical Foundation Research Department's work on surface treatments for metals is a new etch for chromium. Suitable for pre-plated "copper under chromium" bi-metal plates, LTF's new etch produces no fumes and can eliminate a possible need for special ventilation systems.

In addition to this feature, the new etch is said to meet all general requirements; it dissolves chromium but does not attack copper, and when used properly, does not penetrate a hardened stencil nor undercut small stencil dots.

Most other chromium etches contain hydrochloric acid and when they react with chromium, fumes that are more or less toxic and certainly objectionable are produced. By avoiding the use of hydrochloric acid, LTF has also avoided the fumes in any objectionable amount.

Directions for Use

The image is produced on the plate with the regular deep etch process. Two steps, however, must be handled carefully: counter-etching and exposure.

LTF has found that if the chromium is properly "activated" at the beginning, the time necessary to etch or dissolve it later on is greatly decreased. This "activation" can be accomplished by the counter-etch if it is done properly. The following method has been found to work very satisfactorily at the LTF laboratory.

Counter-etching: Use a solution of two fluid ounces of hydrochloric acid per gallon of water and counter-etch for at least one minute. Keep the plate flat and lift the corners to flow the solution around on it. Scrub the plate during the last 10 or 15 seconds of the minute, then turn on the water and scrub a little more under the running water to clean the plate thoroughly. The counter-etching time should be long enough to produce bubbles of hydrogen gas but not so long that the chromium surface is darkened or streaked.

Exposure: Due to spread during etching, tones are too full if normal exposure is used. Therefore, using the standard exposure for a zinc deep etch plate as a basis, LTF suggests that you expose a coated bi-metal plate for at least 50% longer.

Development: Normal development is used. The use of the LTF Sensitivity Guide as described in LTF's Research Bulletin No. 15, offers a very desirable and simple control for proper development time.

Etching: LTF's chromium etch may be used with any technique desired. General practice is to apply a quantity of the solution to the plate and swab it over the surface until the copper is exposed.

Thin Film Etching

A new method was tried at the LTF laboratory that seems to speed up the etching time and is very economical. Called the "thin-film" technique, no more than ½ fluid ounce per square foot of plate surface is needed. Apply this amount of etch and rub it rapidly over the entire plate. During the first few minutes, rub the etch occasionally with a pad. When the chromium first begins to darken here and there on the plate, squeegee the etch to one side of the plate but don't discard it. Let the thin film of etch left by the squeegee stand on the plate for a short while and then cover the plate again with the same etching solution. Repeat this procedure until all of the copper is exposed. If it seems necessary to add fresh etch, use only a small quantity and mix it with the used etch on the plate. If the plate is large, the effect of this technique may be accomplished by moving the etch continuously around the plate with the squeegee. Near the end of the etching period keep the etch only on those areas where the chromium is not completely removed.

As soon as the copper image is completely exposed, squeegee off whatever etch is on the plate and wash the plate at once with several applications of alcohol.

Immersion Technique

Perhaps the easiest way to etch is merely to submerge the plate in a tank or tray of the etching solution. A vertical tank might be preferred from the standpoint of space required and the smaller area of solution that is exposed to the plateroom atmosphere. The only thing the operator needs to do is immerse the plate in the solution and allow it to remain there until the etching is completed.

Only a few initial tests have been made by LTF with this method but from these it appears that a plate can remain in the etch with no undercutting for up to twice as long as it takes to expose the copper. The effects of high relative humidity are minimized as well as the need for constant attention during processing. Possible disadvantages include, of course, the need to construct a suit-

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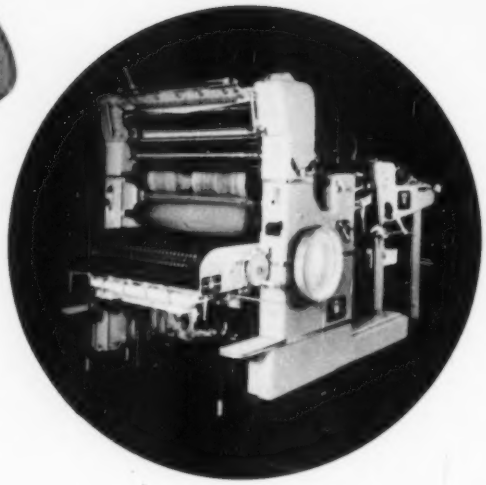

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able tank, space needed by the tank or tray, unevenness of chromium deposit on the plate, and the relatively large amount of solution needed.

LTF laboratory tests have shown that the time required to etch varies considerably from plate to plate and seems to depend on the thickness of the chromium and its condition when etching is started. Thorough counter-etching as described before helps a great deal to make the etching time as short as possible.

Greasing the Copper

Experience at the LTF laboratory indicates that asphaltum containing 5% oleic acid does a better job of making the copper ink receptive than ordinary lacquer. Rub the asphaltum down, let it dry, and then apply the developing ink. Don't rub the developing ink down too thin. Copper seems to hold ink better if the combination asphaltum-oleic acid and developing ink is allowed to remain on the plate for at least a day before the plate goes to press or before it is washed out. The final attachment of the greasing material to copper and the copper's final ink receptivity seem to improve with time. Complete investigation of this observation has not been made to date. There have been many indications lately that time plays a very important part in many of the reactions that occur in lithography.

It may happen that during the processing of the plate or while it is running on the press, unwanted copper areas that will print become exposed. Such areas may be desensitized by the method described in LTF's publication *Research Progress No. 16*

Conclusion

The processing of bi-metal plates is still largely a matter of individual preference and skill. The LTF laboratory has done no extensive test work with any one of the possible methods and does not recommend or suggest any one method or technique as "best." The techniques mentioned here have been found to work well in the laboratory and in plant tests and are suggested as possibilities that an individual craftsman may want to check or try out for himself★★

18,000 Visitors View 240 Varied Exhibits at Chicago Packaging Show

THE American Management Association's 19th national packaging exposition and conference on Chicago's mile-long Navy Pier, April 24 to 27, presented a panorama of lithography's part in the $6,500,000,000-a-year packaging industry. More than 18,000 persons viewed the 240 exhibits of packaging machinery, equipment, design and services which presented the newest developments and techniques in the packaging field. In conferences of packaging experts held during the show, discussions dealt with possibilities for reducing costs of package manufacturing processes and increasing the effectiveness of the package as a sales tool in the retail store.

Three recently developed new types of lithographed displays were shown, while ink manufacturers, producers of plastic packaging materials, paper, box board, adhesives and other supplies also showed their latest contributions for package production.

Outstanding new feature in the Einson-Freeman Co. exhibit was the "Technicrome" display. As explained by Gurdon Simmons, public relations director for this Long Island City, N. Y., litho concern, Technicrome is a new process by which 8-color reproductions are lithographed on transparent plastic, in sizes ranging from 8x10 up to 25x50 inches, and used in back-lighted shadow boxes.

Consolidated Lithographing Corp., Brooklyn, N. Y., had another new development which Henry A. Topping, Sr., vice president, asserted "may revolutionize the entire point-of-purchase medium." Bearing the brand name "Magicast," the plastic display reproduces a human figure which possesses the ability to look the passerby in the eye and continue to do so throughout a 180 degree arc of visibility. Utilizing no moving parts, the patented process creates a life-like illusion of motion by using a rounded concave surface, so that the figure's eyes seem to turn and follow the viewer any way he looks at it. The Magicast display, Mr. Topping said, has drawn tremendous crowds, and produced high increases in sales.

Still another new lithographed point-of-sale display, produced by Stanley Wessel & Co., Chicago, was also shown by the Bakelite Corp. among examples of uses made of its plastic products in various fields. Using vinylite rigid sheets, the design of the Wessel display piece is lithographed by standard methods, then subjected to heat and pressure in a mold, which produces a life-like three dimensional figure, without affecting the lithographed design.

At the Einson-Freeman booth other features of the presentation included the company's top ten displays of 1950, "snow" machines, "bubble" machines and other devices to provide motion in display pieces, including one powered by a simple dime store dry cell battery. S. H. Gold, vice-president, demonstrated the new General Electric 60-piece cardboard toy cut-out circus which he created, and others on hand to welcome visitors included N. J. Leigh, chairman of the board, along with Gordon Gold, John Shaw and Bob Savitt of the sales staff, and Mr. Simmons.

Consolidated Lithographing Corp's exhibit, in addition to the Magicast display, and other point-of-sale materials, included dealer helps, labels, bands and wraps. Assisting Mr. Top-

(*Continued on Page* 101)

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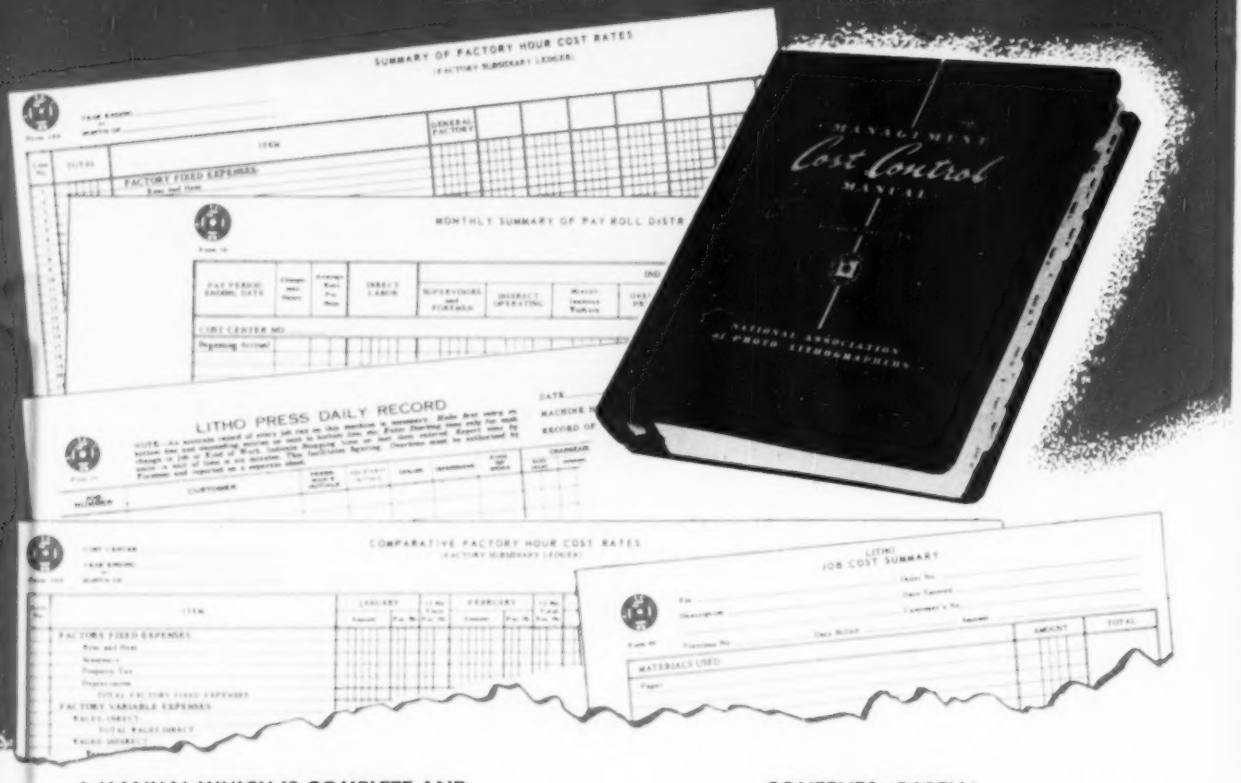

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Methods of Dehumidification in AIR CONDITIONING

PART 6*

IN summer the relative humidity is frequently above the level to be maintained in the lithographic plant. Therefore, water vapor must be extracted from the air.

There are several available methods of dehumidification, and most of them have at least limited application in the air conditioning of the lithographic plant. The specific lithographic requirements, the weather characteristics of the locality, the building characteristics, cost of available water, steam and electric energy, initial investment and maintenance costs will determine the choice of the dehumidification method. This choice cannot be made with reference only to dehumidification — considering only maintenance of the desired relative humidity level. Concurrent maintenance of the sensible heat level (the dry bulb temperature) will also have a bearing on the choice of dehumidification method. These dehumidification methods are:

(1) By cool water spray.
(2) By cool water coils.
(3) By refrigeration.
(4) By steam injector.
(5) By sorbent materials.
  (a) Absorption (silica gel, activated alumina).
  (b) Absorption by halide solutions (lithium chloride, calcium chloride).
  (c) Absorption by organic liquids (triethylene glycol).

Cool Water Spray Method

Use of the air washer for humidification has been described. If the temperature of the spray water is sufficiently below the dew point of the entering air, water will be condensed from the air. Both latent and sensible heat will be removed from the air.

Cool Water Coils

The cool water may be circulated in tubes, usually of fin construction, over which the air passes. As in the case of humidification by cool water spray, water will be condensed from the air if the temperature of the water is below the dew point of the entering air.

The choice between cool water spray or cool water coils is largely a problem of economic design — with use of the air washer for humidification in the winter a factor to be considered.

When enough water at a low temperature—as from a mountain lake or from an existing well—is available, it is possible for the entire work of dehumidification and cooling to be performed by the water alone.

Generally, the use of cool water is limited to humidification (after heating), pre-cooling to carry some of the dehumidification load, sensible cooling and the removal of latent and sensible heat which has been extracted from the air by other means.

Refrigeration

The fundamental principle of dehumidification by cooling the air is the same, whether this is accomplished by cool water sprays in the air washer, by cool water coils, or by refrigeration. When the temperature of the air is reduced below its dew point, water is precipitated.

Modern refrigeration employs a liquefiable vapor, called the refrigerant, which carries heat from the air in the conditioned space to a medium such as water, which, in turn, discharges the heat outside the conditioned space.

In the evaporator, the entering air (water or brine if heat transfer from the air is obtained indirectly by means of cooling coils) discharges its heat to the refrigerant vapor. This is because the refrigerant boils in the evaporator at a lower temperature than that of the entering air. The compressor then compresses the low pressure vapor; and the now high pressure super-heated gas reaches the condenser. Here, the gas condenses into a liquid, still under high pressure. Its heat is transferred to the cold water coils and is carried away. The high pressure liquid passes through an expansion valve into the evaporator—where again it becomes a vapor with a boiling point below that of the entering air. The liberated heat is carried away by brine or cold water.

The actual refrigerating system may be much more complicated than this, but the so-called direct expansion type here described is sufficient for understanding of the refrigeration cycle.

The refrigeration should be so designed that the conditioned air is discharged into the conditioned space with a moisture content such that the moisture load of equipment, personnel and building will, as air mixing occurs, raise the moisture content and relative humidity to the desired level.

In general, cooling the air below its dew point in order to precipitate moisture and maintain the required moisture content also lowers its temperature below the desirable level. Refrigeration should also be so designed that the temperature of the conditioned air discharged into the conditioned space is raised to the required dry bulb temperature by the heat load of equipment, personnel and building.

It is general engineering practice to install refrigerating equipment having

*This series of articles comprises excerpts from the book "What the Lithographer Should Know About Air Conditioning," compiled by Karl Davis Robinson, and being published by the Lithographic Technical Foundation, 131 East 39 St., New York 16, N. Y. ($2.50) The book is now available.

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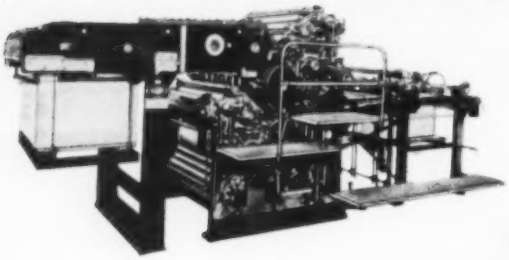

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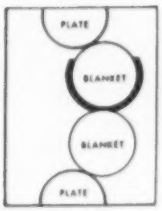

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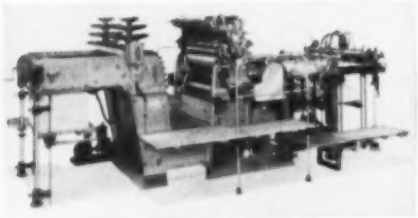

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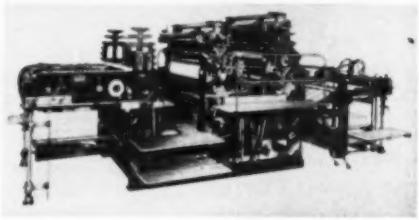

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such capacity that it will handle the peak conditions of the design day—as previously described—the highest relative humidity and dry bulb temperature of record for the locality, but disregarding the few exceptional days of summer which exceed design day conditions. On the design day the refrigerating plant working at maximum capacity, will deliver just sufficient conditioned air which, mixing with the air of the conditioned space, will level off to the desired relative humidity and temperature.

For simplicity, the design day which is used in comfort air conditioning is here described. But actually two design days should be established from Weather Bureau data: (1) design day for maximum moisture load and (2) design day for maximum sensible load. For in the lithographic plant, both relative humidity and temperature are to be maintained constant within the required limits.

But on days with the outside moisture content equal to that of the design day but with a lower dry bulb temperature—days much more frequent than the design day—refrigeration must still deliver conditioned air at the same low temperature as on the design day in order to maintain the required relative humidity. Consequently, with a smaller heat load the sensible temperature of the air in the conditioned space after mixing will be below the required level. This means that when refrigeration is provided to handle the design day, air conditioning equipment in the lithographic plant — where both relative humidity and temperature must be maintained at required levels—must include means for heating the conditioned air, so that after mixing the required temperature will be maintained. It would be uneconomical, both as to investment and operating cost, to design an air conditioning system to handle the highest moisture content and dry bulb temperature on record for a given locality. But with the design day selected as described above, there will be days in the summer and parts of days when the equipment is operating at its peak, but can't maintain the required relative humidity and temperature levels. Compromise is then necessary. The least upset of standardized lithographic conditions will occur when the relative humidity is held constant at the expense of a temperature rise.

The investment and maintenance costs of refrigeration are based on the unit, ton of refrigeration. As described earlier, this is the cooling effect of 288,000 Btu per day of 24 hours, or 12,000 Btu per hour, or 200 Btu per minute. Since the moisture and heat loads can be calculated, and the ton of refrigeration is related to horse power, these costs can be calulated. Investment for refrigeration will be that of the installation required on the maximum humidity design day. That part of maintenance cost which concerns refrigeration depends upon variation of relative humidity during the parts of the year when dehumidification is required and may be estimated on the basis of Weather Bureau reports for the locality.

As previously stated, investment and maintenance costs, for heating air which is below the required temperature level, should be regarded as part of the refrigeration costs.

A Correction

In Part Two of this series of articles on Air Conditioning, (Page 88, Nov., 1949) a table was given showing the amount of water evaporated into the pressroom from various sizes of presses. These figures have been revised in the book just brought out by the LTF. The corrected figures are as follows:

Press Size	Water Evaporated into Pressroom Atmosphere Grains of Water Evaporated, Per Dampening Unit, Per Hour
17x22	19,098
23x36	22,356
36x48	46,656
41x55	59,778
50x68	91,800

Steam Ejector Water Cooler

The boiling point of water is lowered as air pressure is reduced. In a system using steam as an injector, this steam is used in conjunction with what is known as a venturi nozzle. The steam enters the nozzle at high velocity and causes a partial vacuum in the water cooling chamber sufficient to cause the water to boil at between 50 to 60 F. The steam from the venturi nozzle with a small amount of water from the cooling chamber is carried to a condenser, where it is condensed by circulating water from a well, cooling tower or spray pond. The cooled water in the cooling chamber is carried to where it is needed in the air conditioning system.

As in refrigeration, simultaneous dehumidification and cooling occurs, when the dry bulb temperature of the air is lowered below the dew point. As in the case of refrigeration, a steam ejector system should have dehumidification capacity to handle the humidity design day, and supplementary heating means will be required.

The steam ejector system is more complicated than would be suggested by this brief description which is limited to the fundamental principles involved. The steam injector system may be applicable in large installations when sufficient quantities of condenser water and high pressure steam at low cost are available.

Dehumidification with Sorbents

A sorbent is a material which extracts gases or vapors from the air. The materials used as sorbents have a large capacity for moisture in comparison with their volume and weight. Many of the materials used in lithography—paper being the outstanding example — are sorbents; but their moisture holding capacity, although presenting many technical problems, is less than that of the sorbents used for dehumidification.

An adsorbent does not change physically or chemically during the adsorption process. These materials are solids with a capillary structure. They are selective in their adsorption. Silica gel will remove water vapor from the atmosphere in preference to organic vapors. Activated charcoal will remove odors in preference to water vapor. This property of activated charcoal already has been mentioned as a means of air purification.

An absorbent changes either physically or chemically, or both, during the absorption process. Calcium chloride is a solid absorbent. The liquid

(*Continued on Page* 103)

THE PROOF OF *this* PAPER IS IN THE PRINTING!

Why is Nekoosa Bond one of the largest selling papers in the world? Simply because more printers and lithographers are ordering it than ever before. They know that Nekoosa Bond is a *dependable* paper. It lies flat, goes through high speed equipment smoothly and keeps press stops down to a minimum. Letterpress or offset, Nekoosa Bond prints good, looks good and keeps customers satisfied. See for yourself. Just say to your paper merchant: "I want the paper that comes in the yellow wrapper with the blue stripes."

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NEWS ABOUT THE TRADE

PIA Board Announces Plans

Some 125 officers, board members and others attended the mid-year meeting of the board of directors of the Printing Industry of America, held March 24 to 30 at the Greenbrier, White Sulphur Springs, W. Va. Among projects approved for immediate consideration by the group were the formation of an industry-wide education council, the publication of a production standards manual for PIA members, preparation of a foreman training program and manual, and a study on depreciation. The education council was proposed to assist in the development of an adequate educational system for the graphic arts, but not to take over the functions or activities of "any existing effective organization or group." Active membership would be limited to organizations and associations, and the basic financing would be derived from this membership. PIA would become an active member at the annual rate of $10,000 it was said. James J. Rudisill, Rudisill & Co., Lancaster, Pa., heads an organizing committee which is to report at the PIA convention in Chicago Sept. 17-23 at the Palmer House.

•

Recommend Excise Tax Cut

The "luxury" excise taxes on photographic film and certain photographic equipment used by lithographers came under the House Ways and Means Committee's axe in April. The committee recommended repeal of the present 15 percent tax on film and 25 percent on certain equipment in cases where these materials are used for business purposes. The recommendation still has to pass both houses of Congress and then faces a possible presidential veto because it represents a more drastic cut than was asked by the president.

Cornell Heads IPI, Davies V. P.

W. Frank Cornell (left) was elected divisional president of International Printing Ink Div. Interchemical Corp., New York, early in May. He was formerly eastern district manager of IPI. W. N. Davies (right), former New York branch manager, was made divisional vice president in charge of the eastern district. F. Jack Jeuck was appointed divisional executive vice president, continuing in charge of the western district as before.

Mr. Cornell has been in the chemical and ink fields since 1917. In 1928 he joined Standard Printing Ink Co., Cincinnati, as sales manager, and went with IPI when it acquired Standard in 1936. He succeeds to the IPI presidency the late R. W. Smith, who died April 14 at Fort Myers Beach, Fla., following a heart attack. Mr. Smith had been with Interchemical since its formation in 1929. In 1931 he became Chicago manager, and a few years later was elected a vice president of IPI. He was elected president of IPI in 1944.

Muirson Plans Offset Plant

Muirson Label Co., with home offices in San Jose, Calif., for many years producers of labels by letterpress, have announced plans for entrance into the offset field with the acquisition of a new modern plant at Meriden, Conn. Announcement of the new plant, occupied during the war by Chandler-Evans, was made by R. I. Bentley, Jr., president of Muirson, and George E. Fichtner, eastern division manager.

The Meriden property is a one-story building, containing 60,000 square feet of floor space, with daylight illumination throughout. Tentative plans call for installation of multi-color offset equipment.

The company also operates plants at San Jose and Peoria, Ill.

Strike Ends; Other Settlements

A strike which began April 12, and affected three Pittsburgh lithographing plants, ended May 2 when employers and members of the Amalgamated Lithographers of America reached an agreement. Included in the new contract are the following: a $2 per week increase effective May 2 and $1 per week additional to be added to the scale Nov. 1, 1950; and an employer contribution of $1.60 per week per employee for a health and welfare plan to be administered by joint trustees. Previous demands had asked a $4 increase across the board and $2 per week for the welfare fund. Companies affected by the strike were Republic Press, William G. Johnston Co., and Allegheny Litho Corp. The new contract runs until May 1, 1951.

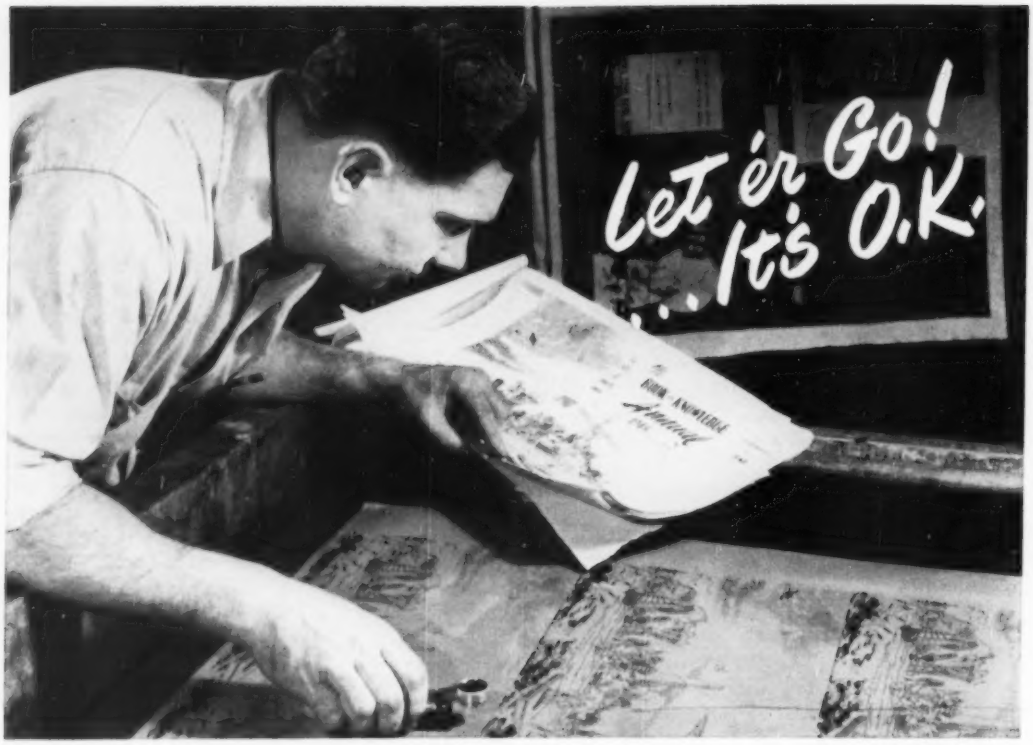
In Buffalo negotiations ended April 13. Provisions included wage increases of 3c per hour across the board, and over and above that individual wage adjustments in classifications ranging from 4c to 17c per hour. There also was a change in the night shift differential. The contract runs until Sept. 30, 1951.

Although a general agreement was reached in New York on April 7, following over two months of negotiations, the final agreement still had not been signed by May 4.

•

Columbus Firm Names Two

Two new executives have been appointed to head the recently created divisions of the Columbus Bank Note Co., Columbus, Ohio. Robert G. Kelley, president, has announced. Herbert G. Dunkel has been named general sales manager of the firm and general manager of the Columbus Lithographing Co. division. This new division was set up to handle advertising and display material. Mr. Dunkel is a former sales executive of the Forbes Lithograph Mfg. Co.



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Butler Joins C. O. Monk

Robert J. Butler (above) has just joined C. O. Monk, Inc., Baltimore ink manufacturers, in an executive capacity, the company announced. Mr. Butler formerly was assistant to the president, General Printing Ink Div., Sun Chemical Corp., New York. He had been with Sun for several years, also having served as general manager of the Fuchs & Lang Div. He is a member of the research committee of the Lithographic Technical Foundation, a member of the New York Commercial Board of Arbitration, Graphic Arts Branch, and has been a regular member of various technical panels at many trade conventions.

Named Hoe Board Chairman

Neil P. Cullom has been elected chairman of the board of directors of R. Hoe & Co., Inc., New York, succeeding H. M. Tillinghast, who has retired from that post because of ill health, Joseph L. Auer, president, announced in April.

Mr. Auer continues as chief executive officer of the company. Mr. Cullom, general counsel to R. Hoe & Co., Inc., has been a member of its board of directors for thirteen years.

•

Oxford Advances Annis

The Oxford Paper Company, New York, has announced the appointment of Harold M. Annis as manager of product development and manager of sales service of the company. Mr. Annis' more recent duties have included general responsibility for the activities of the sales service department which maintains contacts between printing and lithographic plants and company's mills on paper and printing problems. He has, in addition, held the title of staff production manager. Mr. Annis was employed as a chemical engineer by Allied Paper Mills and by the Mead Corp. before joining Oxford in 1937.

•

Insurance Co. Assets High

New high figures in total assets and in surplus funds were shown in the annual report, just released, of the New York Printers and Bookbinders Mutual Insurance Co., New York. C. F. von Dreusche, president and general manager, reported total assets of $2,285,733 and surplus of $709,284. Dividends of 22 percent on workmen's compensation and 25 percent on automobile liability and property damage were paid. Dividends totaled $226,977 compared to $208,990 for 1948.

The company was founded in 1914 at the inception of the New York Workmen's Compensation Law.

•

Research Council to Meet

The Research and Engineering Council of the Graphic Arts Industry will hold its third semi-annual membership and business meeting at the Milwaukee Athletic Club, Milwaukee, on June 22, Frank F. Pfeiffer, chairman of the council, announced. The council, which was organized in June, 1949, by Printing Industry of America and other interested groups, has 250 members, including 28 trade associations and groups. On the day following the meeting, the group will visit the Institute of Paper Chemistry at Appleton, Wisconsin, and the research laboratories of the Kimberly-Clark Corporation, paper manufacturers in Neenah, Wisconsin.

•

St. Regis Appoints Burke

Harold Burke, for the past 17 years associated with Walker, Goulard Plehn Co., Inc., recently joined St. Regis Paper Co., as a salesman in the New York area for the organization's line of fine grade printing papers, according to E. G. Murray, vice president in charge of sales of the Printing, Publication and Converting Paper Division.

Stevens Joins Miehle in N. Y.

William J. Stevens (above) has been appointed assistant manager of eastern offset press sales of the Miehle Printing Press & Mfg. Co., effective May 10, 1950. The joint announcement was made by Carlton Mellick, vice-president in charge of sales, William Hogan, eastern district manager of the Miehle Company, and Walter E. Soderstrom, executive vice-president of the National Assn. of Photo-Lithographers, New York.

Mr. Stevens served his apprenticeship in the Graphic Arts in a Philadelphia typographic plant. Following this he was production manager of several Philadelphia printing firms and more recently plant superintendent of Edward Stern & Co. Until his appointment by Miehle he was executive secretary of the National Assn. of Photo-Lithographers and executive secretary of the Metropolitan Lithographers Assn., New York.

Mr. Stevens is one of the founders of the National Assn. of Litho Clubs and also held the position of president and executive secretary in that organization. For his service to the Litho Clubs he was presented with a resolution at the annual convention of the Litho Clubs in Boston on April 15. He served as president of the Philadelphia Litho Club and was also a member of the board of the New York Litho Club. During the past five years Mr. Stevens has written many articles on lithography for the trade press and has addressed many groups on the subject. He is a member of the New York Litho Club, the Philadelphia Litho Club and the Graphic Arts Trade Association Executives.

Chicago Plans June Graduation

Plans for the final 1950 commencement ceremonies at the Chicago Lithographic Institute were being prepared this month, general manager Wm. O. Morgan announced. No definite date had been set at press time but it will probably be held early in June this year, Mr. Morgan said. The class will include craftsmen who have completed both the one-year and the two-year courses and is expected to total around 200.

COMPANIONS

A boy and his dog are inseparable companions. There is an unexplainable attachment one for the other. Aquatex and Dampabase dampening roller coverings are likewise inseparable companions. One helps the other. Aquatex furnishes the soft, thirsty texture for even distribution of the moisture over the entire surface of the roller, while Dampabase, its undercovering, furnishes the proper cushion for exacting contact with the impression plate. The two together cannot be bettered for fine reproductions. Aquatex and Dampabase eliminate ghosts, lint, fuzz and wrinkles. There are no hills and valleys on a roller covered with Aquatex and Dampabase.

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Grant to Chicago

Appointment of Don Grant (right) as chemical representative for Harris-Seybold Co. in Chicago and the Midwest has been announced by A. S. Holford, chemical sales manager. Mr. Grant, experienced in all phases of lithographic production, especially process photography and plate room work, will work out of Chicago as representative for Harris litho chemicals, distributed in the same area by Roberts & Porter, Inc. Before joining Harris-Seybold in 1945, he spent 17 years in the litho business, at one time or another handling every job in a commercial offset plant, including the position of plant superintendent. In the Harris Laboratories he helped establish standard tests for the control of chemical production, and has also served as an instructor, author and speaker on technical operations in lithography.

•

Sleight Acquires Colo. Co.

Sleight Metallic Ink Co. of Ill. has acquired the Charles W. Young Co., Denver, Colo., founded by the late Charles W. Young, the Sleight Co. announced in April. The Young firm has been a distributor for Sleight for many years. Elmer D. Dunn has been appointed Sleight representative in the Rocky Mountain area. Mr. Dunn formerly was with ATF and had acted as a distributor for graphic arts supplies.

•

Young & Klein Move, Expand

Young and Klein, Inc., which has operated a lithographic plant in Cincinnati, Ohio for the last four years, has moved to 5137 Vine St. in suburban St. Bernard. The new plant has more than twice the floor space available in the former location, which has made possible the installation of a new 22 x 34" Harris offset press and a new Sussin camera. Carl Stopper has been added to the staff as pressroom foreman.

•

Gibson Sales Heads Meet

Division sales managers of the Gibson Art Co. attended a five-day sales conference in the company's home offices in Cincinnati, Ohio, the first week in April. The group, led by Robert H. Stoddard, vice president and director of sales, discussed the 1950 sales promotion program for the 150 salesmen, and the company's national advertising and retail sales programs. Gibson is observing its 100th anniversary this year.

The company reported net income of $1,023,829 for the fiscal year ending Feb. 28, 1950. This is equal to $6.40 per share on the 160,000 outstanding shares. The net income figure compares with earnings of $1,235,519 for the year ending Feb. 28, 1949, or $7.72 a share, according to the report.

•

Fred'k. L. McNally Passes

Frederick Lee McNally, 60, member of the board of Rand McNally & Co., died March 24 in a Chicago hospital, where he had suffered a heart attack three days earlier when undergoing a routine checkup.

Mr. McNally was a grandson of the firm's founder, Andrew McNally. Following graduation from Yale University in 1910, he started work as a company salesman and ten years later became a vice president. From this post he retired 15 years ago.

Join Chicago Craftsmen

The Chicago Club of Printing House Craftsmen received another large class of new members, numbering 23, at its April 18 meeting. Among those listed were John J. Lee, partner, Lakeview Lithograph Co.; Ferdinand W. Ronschke, pressroom foreman, E. Raymond Wright; Gordon Blake, plant superintendent, Chicago Show Printing Co.; Byron Ross, superintendent, Newman-Rudolph Litho Co.; George J. Cushing, sales manager, Cushing & Co.; and John F. Hudetz art dept. foreman, and John A. Peterson, shop supt., Process Color Plate Co.

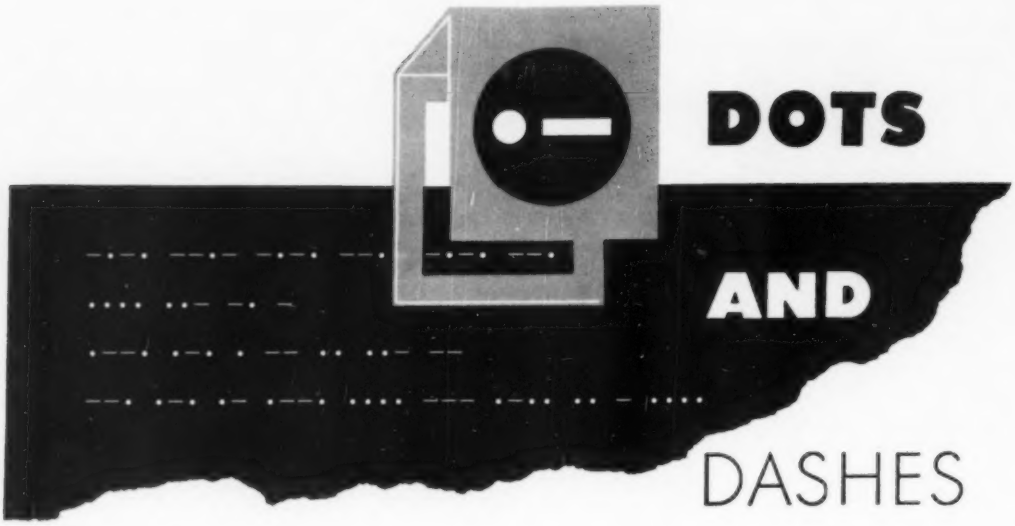
•

Richard R. Donnelley 2nd Dies

Richard R. Donnelley 2nd, executive director of R. R. Donnelley & Sons Co., Chicago, and a grandson of the company's founder, died April 27 in a Chicago hospital after a brief illness. He had entered the employ of the company at 14 years of age, and was a member of the Donnelley 25 Year Club. Surviving are his widow and a son, Richard 3rd.

Promotes "Dept. Store" Theme

Safran Printing Co., Detroit, is currently promoting its services as a "Department Store of Printing." Above is the center spread of a 9 x 12" offset folder, in full color, which shows the layout of the plant. David Safran of the company reported that 20,000 of the folders were mailed out in the campaign. The company was founded in 1904 as a small job shop, and now employs 180 people and utilizes over 75,000 square feet of floor area. Elias Safran was the founder, and his two sons, David and Hyman now carry on the business. The company now offers complete letterpress, offset, art, composition, stereotyping, rotary newspaper, binding and mailing service. A four-color Harris offset press is to be added in June.



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At the head table of the New England Conference (above) are Robert W. Williamson, T. O. Metcalf Co.; G. A. Institute Pres. Charles E. Mallet, Rand Avery-Gordon Taylor, Pres., NAPL; John H. Doesberg, Jr., PIA Officer; and Henry K. Dow, The Record Press, Rochester, N. H.

400 at N. England Conference

R. Verne Mitchell, chairman of the board, Harris-Seybold Co., Cleveland, climaxed the two-day Sixth New England Conference for the Graphic Arts, held at the Hotel Statler, Boston, April 10-11, by addressing more than 400 at the closing luncheon held in the Main Ballroom of the Statler, in conjunction with the Advertising Club of Boston.

In Mr. Mitchell's talk, on the subject "Profits — The Common Ground," he reminded his audience that "profits" are absolutely essential for the continuance of our great economy . . . but that they must be earned and deserved by industry. This is management's job. The Conference was sponsored by The Graphic Arts Institute of Massachusetts, Inc.

•

Develop Hardwood Offset Paper

Further advances in making resin-bonded papers at the National Bureau of Standards, Washington, indicate that vast quantities of hardwoods may be utilized effectively in the manufacture of offset papers, the Bureau announced. The synthetic resin, which imparts the desirable printing properties to these papers, substitutes for the natural fiber-bonding gel usually developed through the use of large amounts of softwood pulps. Current investigations in the Bureau's experimental paper mill show that resin-bonded papers containing 75 percent of hardwood pulps compare favorably with papers made in the conventional way with the customary combination of equal parts of hardwood and softwood fibers. An increase in the proportion of hardwood fibers in printing papers would greatly extend pulpwood resources not only in this country but also in Europe where the stands of hardwood suitable for papermaking are much more extensive than those of softwood, the Bureau said.

•

Cincinnatians Add Equipment

Recent installations of new equipment in Cincinnati lithographic plants included a 62 by 84" Craftsman lineup and a 150-line circular screen at Progress Lithographing Co.; and a Harris 41 by 54" press at Technicraft, Inc.

•

Conn. Co. Aids Education

Connecticut Printers, through its two divisions, Case, Lockwood & Brainard and Kellogg & Bulkeley, played an active part in the observance of B-I-E Day, sponsored on April 12th by the Board of Education and the Chambers of Commerce of Hartford and nearby communities. The company was selected as the representative of the graphic arts industry.

•

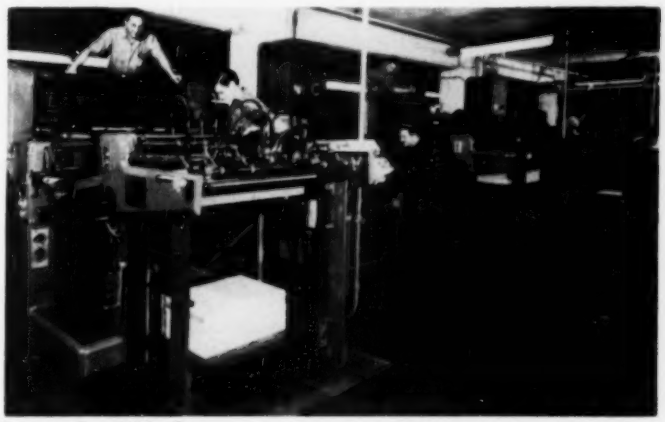
"Horizons" Uses Time Plate

"Steel Horizons," the external publication of the Allegheny Ludlum Steel Corp., Pittsburgh, came out in April with an offset edition in full color, run from Time bi-metal Lithure plates. The *Fortune*-size magazine has a run of 26,000 copies, and is produced by Republic Press, Pittsburgh. Other firms using the plates include Livermore & Knight, Providence, R. I.; Newman-Rudolph Litho Co., Chicago, and Pacific Press, Los Angeles.

•

Jones Opens Hartford Branch

A branch office at 41 Whitman Ave., West Hartford, Conn., recently was opened by C. Walker Jones Co., of Philadelphia, manufacturers of Seamol dampening roller covering, and representative of the Moreland Corp., Philadelphia, roller manufacturer. Charles M. Gibb is branch manager.



Boston Co. Adds Press

The Bailey Press, Boston, recently installed its third E. B. Co. offset press and company employees are shown here looking over the new machine. The company was founded in 1910 by Thomas J. Dillon and is now operated by his two sons, Frank and Thomas.

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Chicago Students Visit Lab.

Forty-four members of a class from the Chicago Lithographic Institute were given an opportunity recently to visit the new Vandercook Research laboratory where they saw a demonstration of the Vandercook offset proof press as well as other processes and equipment. Being the first group to visit Vandercook's new research facilities, a special dinner was arranged for them by the Vandercook company. The class from the Chicago Lithographic Institute is composed of salesmen, executives, foremen, superintendents, journeymen, apprentices and others from various branches of the graphic arts industry interested in enlarging their knowledge of the offset-lithographic process. William O. Morgan, educational director of the Chicago Lithographic Institute, and other faculty members of the institute accompanied the visiting class.

Chicago Settlement Expected

Negotiations for a new contract between the Chicago Lithographers Association and Chicago Local No. 4, A.L.A. continued early this month with the expectation that agreement shortly would be reached. As of May 1, date of expiration of the old contract, no agreement had been reached, but union members had been notified April 29 to continue at work.

Principal original demand of Local 4 was for a pension equal to five percent of wages, to be paid solely by the employers. If not accepted by the employers, the union asked for a wage increase. The pension plan, it was learned, was later dropped by the employers.

Almost continuous daily-sessions of the negotiators were held in late April, sometimes running from afternoon until 1 a.m. next day. These meetings were to continue, Arthur F. Meding, president of the Lithographers Association, stated on May 1, until a mutual agreement can be reached.

•

Broadside Announces Presses

"Not one, but two" new two-color Harris 42 x 58" offset presses were announced in April in a 20½ x 25" broadside issued by Von Hoffmann Press, Inc., St. Louis. Copy promotes the use of the teamed-up presses for two-color or four-color work on a fast schedule.

•

Kansas City Co. Consolidates

Twenty-five thousand square feet of space at 816 Locust St., Kansas City, is now occupied by Ashcraft, Inc., printing and lithographing firm. Operations have been consolidated into the one location where about 65 persons are now employed. W. F. Ashcraft is president.

•

F. C. Powell, Kansas City, Dies

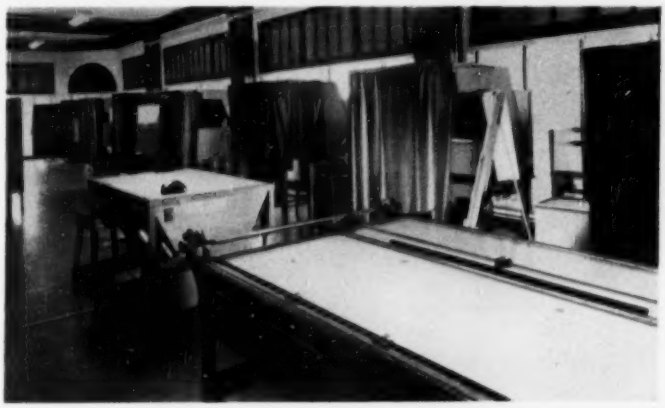
Fred C. Powell, 67, vice president of E. L. Mendenhall, Inc., Kansas City, died March 1. Mr. Powell had been with the printing company 16 years, and started its offset dept.

St. Louis Shop in Open House

Lithocraft Studio, St. Louis trade shop, has doubled its floor space and added new equipment and a new department, as part of its move into its own building at 4824 Washington Ave. After a complete redecorating job the company held open house for the trade April 14. Ed Svoboda, president, said that equipment now includes four cameras up to 48", photocomposing machines up to 72", a Harris 88L for proving, and modern darkroom and color correction equipment.

One darkroom, a point of principal interest to visitors, has sliding panel walls which can divide it into four compartments where different types of processing may be carried on simultaneously.

"We have branched into a new field of color," Mr. Svoboda said. We are now able to offer carbros, transparencies and dye transfer prints, and a complete line of both color and black and white photographic service for advertising purposes." Arthur E. Fillmore, former vice president of the House of Photography, Wichita, is in charge of the photographic studio.



The building originally was constructed for an auto agency and has strong concrete floors and large plate glass windows. It provides 20,000 square feet of space. The company formerly was located at 1531 Washington.

Other officers are George A. Lott, secretary-treasurer, and Don E. Svoboda, vice president.

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WHEN YOU CAN BUY

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SO WHY REGRAIN?

Use NEW PRIME-O-LITH zinc plates.

SAVE money — SAVE trouble — SAVE your old plates and make more money on re-runs.

PRIME-O-LITH plates are BETTER plates — at a lower price. The cost saving is made possible by modern production methods, geared to the manufacture of small grained plates in volume.

TO PLATE GRAINERS — or if you grain your own — write for quotations on ungrained PRIME-O-LITH zinc. We can save you money on any quantity from 500 pounds to a carload.

• • •

Quantity	MULTILITH			DAVIDSON			WEBENDORFER
	No. 40, 50 1227-1250	No. 1300-206	No. 2066-216	.006	.008	.010	14 X 20
100 or more	.18	.50	.65	.18	.19	.20	.65

All orders for 500 plates or more shipped prepaid.
We unconditionally guarantee every plate. Prompt delivery.

• • •

Two conveniently located plants to serve you:

PLATE GRAINERS, Inc.
2155 W. WABANSIA AVENUE
CHICAGO 47, ILLINOIS

GRAINED PRIME-O-LITH PLATES

SUMNER WILLIAMS, Inc.
791 TREMONT STREET
BOSTON 18, MASS.

THE Northwest PAPER COMPANY

CLOQUET, MINNESOTA

Northwest Pedigreed Papers Always Make Good Printing Better

SALES OFFICES

CHICAGO 6
20 N. WACKER DRIVE

MINNEAPOLIS 2
FOSHAY TOWER

ST. LOUIS 3
SHELL BUILDING

PRINTING PAPERS

NORTHWEST BOND
NORTHWEST LEDGER
NORTHWEST MIMEO BOND
NORTHWEST DUPLICATOR
NORTHWEST OFFSET
NORTHWEST INDEX BRISTOL
NORTHWEST POST CARD
KLO-KAY BOOK
KLO-KAY LABEL
MOUNTIE LABEL
MOUNTIE BOOK
MOUNTIE OFFSET
MOUNTIE TEXT
CARLTON BOND
CARLTON LEDGER
CARLTON MIMEOGRAPH
CARLTON DUPLICATOR
NORTH STAR WRITING
NON-FADING POSTER

ENVELOPE PAPERS

NORTEX WHITE
NORTEX BUFF
NORTEX GRAY
MOUNTIE
CARLTON

CONVERTING PAPERS

PAPETERIES
DRAWING
ADDING MACHINE
REGISTER
LINING
GUMMING
COATING RAW STOCK
CUP PAPER

THE NORTHWEST PAPER COMPANY
MANUFACTURERS SINCE 1898

5319

200 at Milwaukee Conference

More than 200 executives (above) from graphic arts firms all over Wisconsin attended the Fifth Annual Graphic Arts Conference in Milwaukee March 18. The conference is sponsored jointly by the Graphic Arts Assn. of Milwaukee and the School of Commerce of the University of Wisconsin. Paul C. Clovis, president of the Twentieth Century Press, Chicago, and president of the Graphic Arts Assn. of Illinois, was the principal speaker. Speaking on the subject, "Franklin and Freedom," he pointed out that the material and spiritual advantages enjoyed by the people of the United States are limited or entirely lacking in other countries. "The same fate can befall us as happend to the other countries unless we remain alert individually and collectively," said Mr. Clovis.

Other speakers were George B. Moss, president of the Graphic Arts Assn. of Milwaukee, and president of Western States Envelope Co., that city; E. A. Gaumnitz, assistant dean, School of Commerce, U. of Wisconsin; R. B. Renwick, Better Business Bureau of Milwaukee; Arthur A. Wetzel, president, Wetzel Brothers; Thomas A. Moore, vice president, Marine National Exchange Bank; Col. George D. Gaw, director, Color Research Institute of America; Walter G. Cruice, sales manager, Pohlman Studios, Inc.

Offset Installations Outrun Available Pressmen

OFFSET presses are being erected in Chicago faster than men can be found or trained to run them, say Chicago lithographers. This has resulted in a lively demand for skilled pressmen, as reflected in numerous want ads constantly appearing in Chicago newspapers. Cameramen, layout men, platemakers, strippers and estimators also are sought, but the larger number of ads emphasized with display heads, are asking for press operators. Many of them seek pressmen with experience on multi-color presses. Most of the calls come from Chicago shops, but occasionally, it is noted, the ads are placed by litho concerns in other cities as far away as the Pacific coast.

The situation, according to authoritative Chicago industry leaders, is due in large part to the considerable number of new offset presses which are being installed, particularly in letterpress shops which have expanded into lithography.

At the Chicago office of the Lithographers National Association it was reported that, while a pressman looking for a job occasionally turns up, the organization's placement service is finding it extremely difficult to assist employers in locating experienced men with the desirable skills.

In the face of this demand for more trained craftsmen there has been considerable discussion of the union rule which permits the training of only one apprentice to each five journeymen.

While the Chicago Lithographic Institute is recognized as doing a splendid job in training apprentices and journeymen in all lines of lithographic operations, this work is restricted almost wholly to men already employed in Chicago union shops. Not more than 1 percent of the Institute's enrollment, it is said, represents what could be considered as a contribution toward relief of the general industry-wide shortage.

Following completion of current negotiations for a new wage contract, which were under way last month, it was understood that the Chicago Lithographers Association will again give its attention to the problem of somehow finding a way to infuse some new blood into the industry's employee ranks.

Meanwhile confirmation was obtained by this magazine of rumors that have been current in Chicago for some time to the effect that the Chicago letterpress pressmen's union had started a school for the formal training of offset pressmen.

At the headquarters of Franklin Union No. 4, which is sponsoring the project, it was stated that the new school has been in operation since last September. It is located at 712 Federal street and the instructor in charge is Reginald Kainach. Further information was not available.

•

Lawton Co. Adds Press

The company's second offset press, a Miehle 42 x 58" two-color, was installed recently by The Lawton Co., Chicago engraving, printing, and binding firm, David L. Lawton, president, announced. The company entered the offset field last August, and now reports that it has found the flexibility of the process adaptable to its line of high grade color work. Mr. Lawton looks for further expansion in the offset operations.

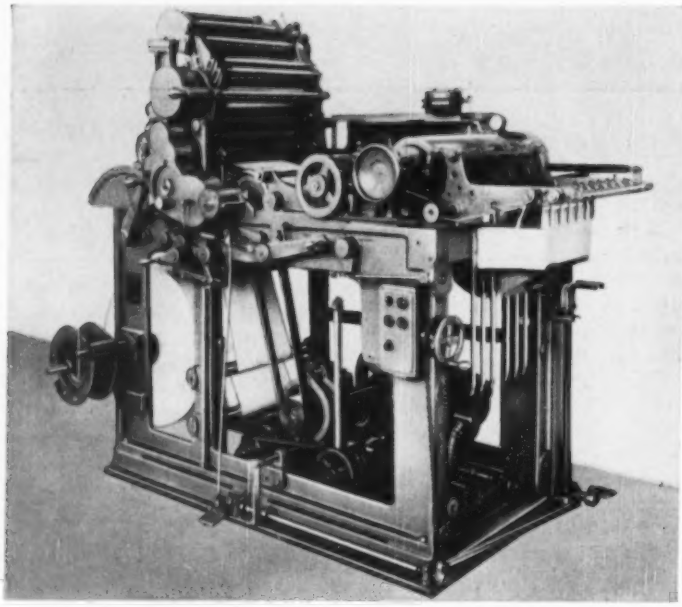
•

McMicken Joins Milw. Firm

Jack E. McMicken, former advertising manager of Pertex Corp., Milwaukee, recently joined the sales staff of Dosie & Johnson, lithographing firm, that city.

There's good money in office forms printed on the

Hoe Web Offset Jobber



Prints sheets from 8½" x 10" to 8½" x 14", on one side in one color, at rate of 10,000 to 30,000 an hour, neatly stacked, ready for shipping.

This modernized offset press handles any size of run profitably because it is built for quick make-ready, quick paper roll changes, quick plate changes, quick wash-up.

Designed for a paper roll width ranging from 10 to 14 inches, a knife, above delivery outlet, provides for a fixed cut-off of 8½ inches, permitting delivered sheets 8½ inches wide up to 14 inches long. Prints on any stock from onion skin to index bristol.

Just the press for fast production of office and factory forms, letterheads, handbills, public notices, circular letters, instruction sheets, and any other job requiring only one color on one side of sheet.

The new Hoe Web Offset Jobber occupies only 3½ x 7 feet of floor space and is powered by a 1½ h.p. 220 AC 3-phase 60 cycle motor with variable speed transmission.

Write for complete information on this remarkable press.

R. HOE & CO., INC.

910 East 138th Street New York 54, N. Y.

BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
BIRMINGHAM • PORTLAND, ORE.

Heads Williams Co.

Edward F. Johannemann has just been elected president of R. S. Williams Co., New York manufacturers of printing and lithographic inks. Mr. Johannemann succeeds his associate of many years, the late Robert S. Williams.

After seven years with Fuchs and Lang Mfg. Co. Mr. Johannemann became associated with Ault and Wiborg Co. in 1924, and served as director of ink research and formulation. In 1929, he and Mr. Williams established the R. S. Williams Co. Inc.

Robert S. Williams Jr. was elected to serve as vice president. The company recently moved to enlarged quarters at 237 Lafayette Street, New York City.

Exhibit at Premium Show

Two Chicago firms, the Green Duck Co., and the Meyercord Co., and a Lexington, Ky., firm, Spotswood Specialty Co., were among exhibitors of lithographed products at the 17th annual National Premium Buyers' Exposition in Chicago, Mar. 28 to 31. Green Duck Co. had a lengthy line of lithographed metal items, also paper products, advertising buttons, key tags, etc. Staffing the booth were E. L. Butler, E. W. Jordan, Richard Johnson, Wm. Kleiner, Joe Morys and Walter Bohlman.

The Meyercord Co. displayed decalcomania transfer premiums, including a new decal for application to textile fabrics of all kinds. R. E. Royer, sales manager, was in charge, assisted by Mrs. Phyllis Johnson, D. A. Stockburger, W. A. Rapp, Howard Glawe, and G. V. Spencer.

Col. A. T. Linney, president of Spotswood Specialty Co., directed the sales staff at his booth, assisted by Mrs. Linney, J. Howard King and Mrs. King, Robt. L. Hayman and Walter Lieberman. On display was a large selection of ingenious premium specialties from African jungle blow guns to jet rocket ships, puzzle games, emergency waterproof umbrellas, etc. All printing processes are employed for their decoration and a large portion of the lithographed items are produced by various litho firms.

•

Win Safety Honors

Standard Register Co., Dayton, O., won first place in the accident prevention contest conducted by the National Safety Council's printing and publishing section for the six-month period ending Dec. 31, 1949.

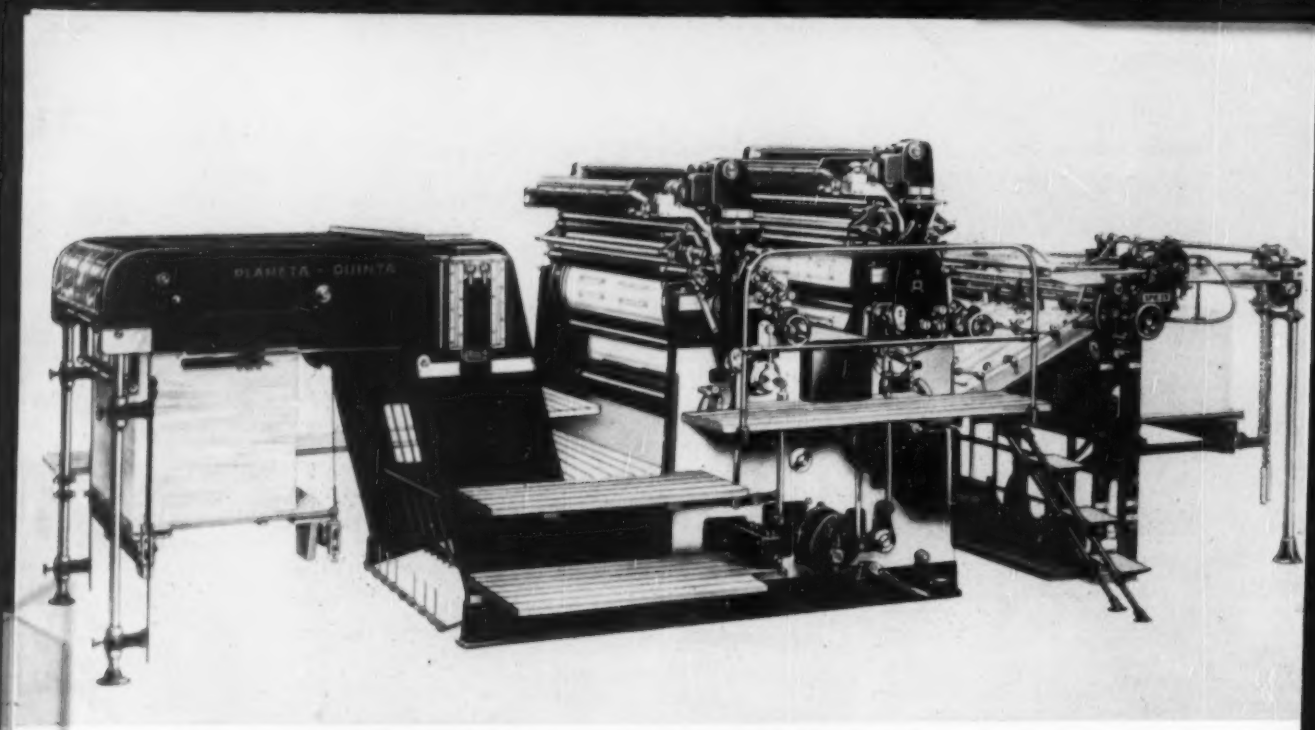
Morgan Addresses Meetings

J. Tom Morgan, Jr., president, Litho-Krome Co., Columbus, Ga., was the speaker April 6 at a meeting of the Junior Executives Club of Philadelphia. His subject was "The Fundamentals of Offset." Mr. Morgan also recently addressed the advertising students at Rollins College, Orlando, Fla., on lithography.

•

New Nebraska Company

The Beaver Press, a lithographing firm, was formed recently at 209½ W. Front St., Grand Island, Neb., by Harry A. Rinder, Jr., and Charles E. Cummings.



PLANETA UZO 6 - 36x50 - 6000 sheets per hour

Acclaimed! by lithographers throughout the world!

FOR THESE FEATURES: 20% faster than older, licensed English model.
Micrometric, precision construction.

A TWO COLOR OFFSET PRESS AT THE COST OF A SINGLE COLOR PRESS

The Planeta is a two-color offset press extremely popular all over the world. Now offered for the first time in the United States, it has these advantages:

Spiess Stream type feed, Automatic paper pile hoist; Perfect equalizer of ink; Easy to get at working parts; Improved dampening mechanism — Storage fountain solution feeds automatically to water fountain, keeps it at constant level, eliminates hand filling, and provides more uniform dampening action.

Takes sheet 36x50; Runs two colors with hairline accurate register; Prints two colors for the price of one. Streamlined design saves floor space; ink founts and ink knife can be taken from ink ductor; knife is readily cleanable.

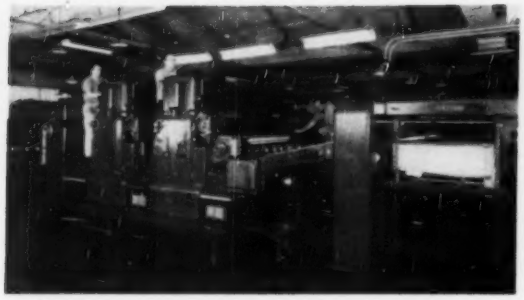
INSTALLATION AND ERECTION OF PRESS BY MASON, MOORE & TRACY, INC.

The Planeta is fabricated in Germany, in the birthplace of lithography. It is constructed with every post-war improvement and combines the qualities of a precision instrument with the know-how of over 100 years of printing press manufacture. It is the result of years of experience, improved by experiment and perfected by us. This is the latest, improved model, and is the finest press being made today.

ACME LITHO PLATE GRAINING CO., INC.
96 JAY STREET, BROOKLYN 1, N. Y.
TELEPHONE: MAIN 4-8525

Cable Address: ALUPLAT

SPECIAL OFFER: SAVE ⅓ ON YOUR RUBBER PRESS BLANKETS. SEND A TRIAL ORDER. GUARANTEED.



Condé Nast Adds Press

This new two-color Miehle No. 61 offset press is now in operation at the plant of Condé Nast Publications, Inc., in Greenwich, Conn. Installed to speed up and increase production, it handles a maximum sheet 42x58 in.

U. S. P. & L. Reports Earnings

The U. S. Printing and Lithographing Co., Cincinnati, reported net income for 1949 of $1,273,209, after all charges and taxes. This compares with earnings of $1,956,433 in the preceeding year.

•

Bond Offset Rents Space

Bond Offset Co., Inc., recently leased space at 683 Broadway, New York.

W. Va. to Hold Offset Clinic

West Virginia Institute of Technology, Montgomery, W. Va., will offer an offset lithographic information clinic, June 15 and 16. Cooperating with the college will be technicians from Eastman Kodak Company, Rochester; American Type Founders Corp., Elizabeth, N. J.; The Lithographic Technical Foundation, New York; C. B. Collins Supply Company, Pittsburgh, Pa.; International Printing Ink, New York; and the Multigraph Corporation, New York.

The conference will operate largely on a clinical basis, with time being given to laboratory demonstrations, and to round-table discussions. The program will be divided into two parts: (1) For those new in Photo-Offset, who either have recently entered the field, or who are considering entering; (2) For those who are actively engaged in the field and seek additional information.

•

Jos. D. Tallman, Washington, Dies

Joseph D. Tallman, 32, proprietor of the Commercial Litho Plate Making Co., Washington, D. C., died April 19, following a brief illness from an undetermined malady. A native of Amsterdam, N. Y., Mr. Tallman had been in lithographic work in the navy and opened his business in 1948.

•

Burger Joins Polygraphic

Charles H. Burger, Jr., recently joined the sales staff of the Polygraphic Co. of America and will work in the New York area, the company announced in April. Mr. Burger formerly headed his own art service.

Ellison Heads Newark Rotary

John Ellison, president of Lewis Roberts, Inc., ink makers, was elected president of the Newark Rotary Club April 25. He has been a Rotarian for 25 years and will take office on July 1st. Mr. Ellison is also president of Rovan Corporation, New York; a past president of the National Association of Printing Ink Makers; a member of the New Jersey Advertising Club; New York Advertising Club; Master Printers Assn. of Newark; and Newark Club of Printing House Craftsmen.

•

Harris Announces Installations

Installations of Harris offset presses and Seybold cutters in offset plants, during the two month period ending March 1, 1950, were announced in April by the Harris-Seybold Co., Cleveland.

The list follows:

Hurst & Yount, Chico, Calif., 17 x 22
Aldine Ptg. Co., Los Angeles, 22 x 34
Hobby Stationery, Inc., Colo. Springs, Colo., 22 x 34
U. S. Govt. Ptg. Office, Washington, 35 x 45
Navy Hydrographic Office, Washington, 42 x 58, two-color
Syms York Co., Boise, Idaho,. 21 x 28
Art Press, Inc., Chicago, 40" cutter
Edwards & Deutsch Litho Co., Chicago, 42 x 58, two-color
D. F. Keller Co., Chicago, 35 x 45, two-color
Indianapolis Blue Print & Litho Co., Indianapolis, 44" cutter
Messenger Corp., Auburn Ind., 22 x 34
Burlington Laboratories, Burlington, Ia., 17 x 22
Donlevy Litho. Co., Wichita, Kan., 17 x 22
Pike Burden, Wichita, Kan., 17 x 22
Barton-Cotton, Inc., Baltimore, two 22 x 34, and 50" cutter
Wickland-Nolley Litho., Inc., Westminster, Md., 35 x 45
Storrs & Bement Co., Boston, 40" cutter
Sanderson Brothers, N. Abington, Mass., 21 x 28
New England Offset Co., Worcester, Mass., 21 x 28
Graphic Arts Process, Detroit, 35 x 45
Seeman & Peters, Inc., Saginaw, Mich., 22 x 34
Harrison & Smith Co., Minneapolis, 35 x 45 two-color
Phelps Offset Printing Co., Minneapolis, 17 x 22
K-B Co., Omaha, Nebr., 22 x 34
Barton Press, Newark, N. J., 35 x 45 two-color
Industrial Litho Co., Brooklyn, N. Y., 50" cutter
Wickersham Press, Long Island City, N. Y., two 21 x 28
Albert Arenson Press Co., New York, 50" cutter
Kipe Offset Process Co., New York, 22 x 34
Rochester Lithograph Co., Rochester, N. Y., 42 x 58 two-color
Gaylord Bros., Syracuse, N. Y., 44" cutter
Multi-Colortype Co., Cincinnati, two 44" cutters
Tri-State Offset Co., Cincinnati, 22 x 34
Central Lithograph Co., Cleveland, 17 x 22
Reynolds & Reynolds Co., Dayton, 50" cutter
Ohio Lithographing Co., Toledo, two 17 x 22
Berneliff Printers, Portland, Ore., 21 x 28
Herbick & Held Printing Co., Pittsburgh, Pa., multiple spindle driller
Robinson Press, Inc., Woonsocket, R. I., 17 x 22
Wetmore & Co., Houston, Tex., 44" cutter
Wm. S. Henson, Inc., Dallas, Tex., 40" cutter
Metropolitan Press Printing Co., Seattle, Wash., 22 x 34
Advocate Printers, Ltd., Winnepeg, Canada, 17 x 22
Regal Stationery Co., Ltd., Toronto, Can., 21 x 28
E. A. Wray, Montreal, Can., 22 x 34
Runge Press, Ottawa, Can., 50" cutter

YLA Studies Offset Education Facilities in N. Y.

LITHOGRAPHIC education, to be effective, must have proper tools, hard work and hard cash, and must be backed by top management. This was the concensus of opinion of a panel of qualified men who discussed various aspects of lithographic education at the April 11 meeting of the Young Lithographers Assn. at the New York Advertising Club. Various types of training facilities in the New York area were discussed by the men who comprised the panel: Richard F. Shaffer, instructor in a lithography course at New York University; Dr. D. J. MacDonald, dean of lithography, New York Trade School; George Mattson, Lithographers National Assn.; Don Taylor, executive director, New York Employing Printers Assn.; and Wade E. Griswold, executive director, Lithographic Technical Foundation. Al Somans, National Process Co., was moderator.

There are four general levels of training, it was said: pre-apprentice, vocational school, trade training, and junior executive or collegiate. Most of the discussion centered around the latter two.

Trade training in the New York area is centered in the New York Trade School, Dr. MacDonald said, where about 500 students are taking lithographic work. Mr. Shaffer reported that 500 are enrolled in graphic arts courses at NYU, and Mr. Taylor added that some 600 are taking work in the Employing Printers courses. These latter two programs are considered training for junior executives, buyers of printing, agency production men, and men of similar interests.

Mr. Mattson stated that no training program is any better than its support by top management, and cited his experience as director of training at several RCA plants. He reported one plan where the company advances the employees' tuition for night school, then is repaid by weekly salary deductions over a period of time. A refund of 90 percent of the tuition is made if a grade of A is made in the course, the employee gets back 80 percent for a B, etc. with no refund if he fails to pass. This incentive system worked well, he said. H. P. Latimer of the LNA reported that 225 graphic arts courses were now using LNA material on lithography to supplement regular training materials.

A similar panel, supplemented by several lithographing employers was planned for the May 10 meeting at which time the possibility of a course for teaching "What the Litho Salesman Should Know About Lithography" was to be discussed.

The May meeting was the final event planned by the YLA until September.

•

Kan. Craftsmen Study Litho

The Wichita Club of Printing House Craftsmen heard Loren Kennedy speak on the procedures used in reproducing transparencies by lithography, at its meeting April 20 at Wolf's Cafeteria.

LITHO CLUB NEWS

Rochester Litho Club Formed

The Rochester Litho Club, with members from Rochester, N. Y. and surrounding area, recently was organized and was announced at the Boston convention of the National Assn. of Litho Clubs. Shown above, at the club's first meeting, are (L. to R.): Carl Goerbing, VP; Harold Rechin, Pres.; Mayor Samuel Dicker of Rochester; Howard Miller, Eastman Kodak; and Carl Bigger, Secy. Others of the new club are: Harold Rechin, Rochester Lithograph Co., president; Carl Goerbing, Rochester Folding Box Co., vice president; Carlton Bigger, Rochester Offset Plate Corp., secretary; and John Heim, Case-Hoyt Corp. treasurer.

Directors are: Robert Hart, Leo Hart Co.; Mike Palmer, Stecher-Traung Lithograph Corp.; Alfred Eisenbraum, Rochester Folding Box Co.; Harry Merker, Rochester Electrotype Co.; and R. J. Richards, Rochester Institute of Technology.

Nearly 50 men attended each of the club's first two meetings, Mr. Bigger reported. Meetings currently are being held on the second Tuesday of each month at the Sheraton Hotel. A meeting was planned for May 9, with another tentatively planned for June 13. Meetings would probably be suspended after that until September, it was said.

President Rechin represented the club at the Boston convention.

Kirkpatrick Discusses Presses

Pat Kirkpatrick, eastern representative of The Rapid Roller Co., Chicago, discussed improvements and developments in offset presses in a talk to the Philadelphia Litho Club at its monthly meeting April 24 at the Poor Richard Club. Mr. Kirkpatrick based his talk on his own observations made on a recent tour of the nation's press builders, particularly those in the East. Some developments, he said, are still on the drawing board, but others are already in production.

His address was followed by a question and answer session.

Litho Club president Joseph Hickey, Lithographic Service Co., reported that at the convention of the National Association of Litho Clubs, held in Boston April 14-15, he and fellow-delegates Joseph Mazzaterri, Colorcraft Co., and Anthony Capello, Joseph Hoover and Sons, Co., put in a strong bid for Philadelphia as the scene of the 1952 national convention. Delegate Capello was nominated and elected first vice president of the national association. Among other Philadelphians attending the convention were John Dieterle, Sinclair and Valentine Co., and Dan GaHagher and Harry Duffy, both of Crescent Ink and Color Co.

Seven new members, three associate and four active, were accepted for Litho Club membership at the board meeting, held April 3.

The associate members are: Charles F. Kohnhauser, Ault and Wiborg Div. of Interchemical Corp.; Clyde B. Cobaugh, vice president of Schuylkill Paper Co.; and Stuart Sweet, O. J. Maigne Co. The new active members are: William J. MacNeill, Horace Temple, Inc., Westchester, Pa.; Leo J. Selm, Jr., World Press; Edward W. Hartman, Philadelphia Colortype Corp.; and C. Kenneth Davis, Jr., Williams and Marcus Co.

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Dayton Club Hears Dorst

Paul W. Dorst, lithographic consultant of Cincinnati, addressed 35 members and guests of the Dayton Litho Club at its April 3 meeting, on "Litho Plant Production for Today's Market." He described how production costs can be lowered and quality raised at the same time. (Mr. Dorst's article on this subject was published in April ML., Page 26.)

The meeting was held at the cafeteria of the Reynolds & Reynolds Co. The club was planning its next meeting for May 1 at the same location.

•

Organize Oklahoma Litho Club

Representatives of over 20 lithographic plants recently formed the Oklahoma City Litho Club, assisted by representatives from the recently organized Dallas Litho Club. James Pitts, H. Dorsey Douglas Co., was named chairman of a committee to formulate a constitution and nominate officers. Representatives from Dallas included Walter Tew, president of the Dallas club, and Joe Miller. Thirty-eight were present at the meeting.

•

Discusses Dot Patterns

"Dot Pattern and Dot Arrangement" was the subject of a talk by Stanley Crane of the Hennegan Co. at a monthly dinner meeting of the Cincinnati Litho Club in Hotel Gibson on April 11. About 40 members and guests were present.

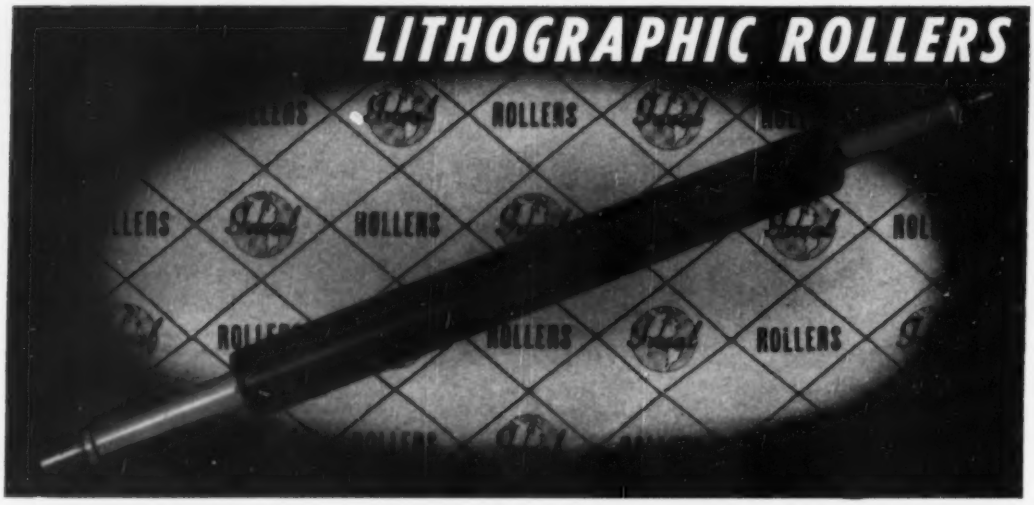
During a business session, president Louis J. Weiss announced the following committee to name candidates for "Red" and "Blue" tickets for the annual election in June: James Ramsey ,Rainbow Lithographing Co.; Larry Dougherty, Tri-State Lithographers, Inc.; Cliff Schopper, Progress Lithographing Co., and Cliff Hebbeler, the Hennegan Co.

Paul Dorst, consultant and writer on lithography, was to be the speaker at the club meeting on May 9, and a report on the recent convention in Boston was to be submitted by the club delegates, Frank Petersen, Rainbow Lithographing Co., and Ted Williams and Mr. Weiss of Progress Lithographing Co.

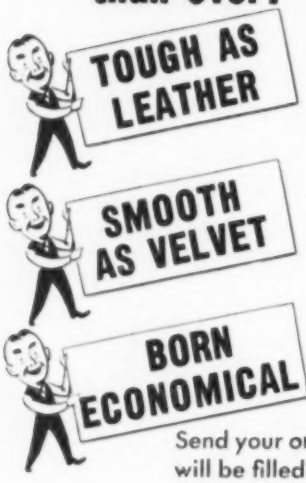
On April 21, approximately 50 club members and guests went by bus to Louisville, Ky., where they inspected the plant of the Courier-Journal.

New! DUROLITH

LITHOGRAPHIC ROLLERS



Yes! This is the same fine DUROLITH lithographic roller introduced just before the war — better than ever!



Four times as strong as regular vulcanized oil roller covering — yet with all the advantages of ink affinity and color-true distribution.

Washes up clean! Speck-free solids guaranteed. Dry, non-greasy surface prevents water accumulating in either the distributor or intermediate position.

Double life guaranteed! DUROLITH rollers will not crack or split. Running in varnish does not shorten life. Withstands grueling requirements of modern, high-speed presses yet delivers the same excellent, high-quality results for which vulcanized oil regular rollers have become so widely known.

★

Send your orders for DUROLITH rollers now! They will be filled in order of receipt. Send to Chicago or Long Island City. (The Pacific plant equipment for making these fine rollers is not quite complete.)

★ ★ **IDEAL ROLLER & MANUFACTURING CO.** ★ ★

2512 West 24th Street
Chicago 8, Illinois

1504 East Fourth Street
Los Angeles 33, California

21-24 Thirty-Ninth Avenue
Long Island City 1, N. Y.

LITHO CLUB GUIDE

BALTIMORE
J. T. Keating, Secy.
Bingham Bros. Co.
125 Colvin St., Baltimore 2, Md.
Meets 3rd Monday, Para Plata.

BOSTON
Edw. Harnish, Secy.
109 Mill St., Lexington, Mass.
Meets 2nd Wed., Hotel Garoner.

CHICAGO
Wm. O. Morgan, Secy.
Chicago Lithographing Institute
1800 S. Prairie Ave., Chicago 16
Meets 4th Thursday, Congress Hotel.

CINCINNATI
Max Birri, Secy.-Treas.
The Palm Bros. Decal Co.
Regent, Lexington & Spencer Ave.
Meets 2nd Tuesday.

CLEVELAND
Sol D'Allesandro, Secy.
Horn & Norris, Inc.
2729 Prospect Ave., Cleveland
Meetings announced locally.

CONNECTICUT VALLEY
Robert Ervin, Secy.
Hubbard, Inc.
1188 Main St., Bridgeport, Conn.
Meets 1st Friday, March, May, Sept., Nov., and sometimes other months, City Club, Hartford.

DALLAS
Walter H. Tew, Pres.
Century Printing Co.
Meets 1st Monday of Month

DAYTON
Edward Bode, Secy.
504 Marjorie Ave.
Dayton 3, Ohio
Meets 1st Monday.

DETROIT
Erwin Stoetzer, Secy.
Welker Letter Service
66 E. Forest, Detroit 1, Mich.
Meets 2nd Thurs. at Carl's Chop House.

MILWAUKEE
Anthony Dworzak
4956 W. Vollmer Ave.
Milwaukee 15, Wis.
Meets 4th Tuesday at the Miller Inn.

NEW YORK
Hammond Sullivan, Secy.
Woodrow Press
227 E. 45th St. New York 17
Meets 4th Wednesday, Building Trades Club

OMAHA
Walter Graham, Secy.
Modern Litho Co.

ONTARIO
Norman R. Hurst, Secy.
R. G. McLean, Ltd.
26 Lombard St., Toronto, Ont.

PHILADELPHIA
Joseph Winterburg, Secy.
622 Race Street.
Philadelphia 6.
Meets 4th Monday, Poor Richard Club.

ROCHESTER
Carl Bigger, Sec'y.
Rochester Offset Plate Corp.
82 Allen St., Rochester.
Meets 2nd Tues., Sheraton

ST. LOUIS
Fred Francis, Sec'y.
Comfort Ptg. Co., 200 S. 7th St.
Open meetings in Feb., April, June and Aug

TWIN CITY
Robert Batten, Secy.
Lund Press, Inc.
700 S. 4th St., Minneapolis 15
Meets last Thursday of month.

WASHINGTON
Robert E. Rossell, Secy.
3106 Old Dominion Blvd.
Alexandria, Va.
Meets 4th Tuesday, Hotel 2400 (N.W. 16th St.)

NAT'L ASS'N. OF LITHO CLUBS
Edward Harnish, Pres.
109 Mill St., Lexington, Mass.

Washington Plans Ladies Night

A ladies night dinner-dance with a non-technical talk on color, is planned by the Washington Litho Club, May 23, at Hotel 2400. The speaker is to be Ralph M. Evans, who is in charge of color processes at Eastman Kodak Co., Rochester. This is planned as the last meeting of the club until September.

At the April 25 meeting, J. Kromberg, Certified Public Accountant of New York, who specializes in the graphic arts, addressed the club on cost accounting and related subjects.

Recent addition to the club's membership include Thomas D. McCall, Federal Lithograph Co., and Vincent Vasco, U. S. Weather Bureau.

•

Omaha to Hear Makarius

Ted Makarius, sales manager, Fuchs & Lang Div., is scheduled to address the Omaha Litho Club at its June 21 meeting. His subject will be "Danger Signals" with special emphasis on pressroom operations.

N. Y. Club Hears Binder

Harry Cowan, vice president of the Trade Bindery, addressed the New York Litho Club at its April 26 meeting, on the many aspects of imposition and binding for publishing companies. He discussed new techniques and mechanical developments, and emphasized the importance of proper layout of press sheets for economical handling in the bindery.

The meeting was held at the Building Trades Club.

The club's next meeting is planned for Wednesday, May 24 at the same location.

The May meeting will complete the schedule of regular meetings until fall, but the club's annual outing is planned for Saturday, June 3, at Blasberg's Grove, Hawthorne, N. J. Michael Annick, Rutherford Machinery Co., Div., Sun Chemical Corp., is chairman of arrangements and reservations.

New members of the club, announced at the April meeting, are: Charles W. Merritt, Merritt Mounting & Finishing Co.; Raymond Malkin, Zeese-Wilkinson-Dillon Co.; Eli Tockar, Litho Tone Corp.; Charles E. Strub, Curtiss Wright Corp.; Walter Coronetz, Legal Offset Printers; and Harold Passman, Brooklyn Letter Service.

•

97 at Cleveland April Meeting

Ninety-seven members and guests attended the April 7 meeting of the Cleveland Litho Club and heard a panel discussion on the preparation of copy for offset lithography. The meeting was held at Reserve Litho.

A new meeting place was announced, beginning with the May 4 meeting. The club will meet at the Town Club which will provide more space for the larger crowds attending. Phil Quartararo, in charge of camera and platemaking at Kindred, MacLean & Co., New York, was to address the club at its May meeting.

The club is planning a picnic June 24 at the Braeburn, 248th and Euclid. Summer plans also include a group party at the night baseball game in Cleveland, August 4.

Chicago-Milwaukee Bowl

The Chicago Litho Club opened its April 27 meeting with a post mortem examination of the havoc wrought on their bowling team by the Milwaukee Club's bowlers in the latter city April 8.

Milwaukee's victory gave them permanent possession of the cup put up three years ago. Members of the Chicago team were Glenn Dahling captain, Pres. Carl Ericksen, James J. Spevacek, Ed Payne and Mr. Cartwright.

E. Gurin, chief chemist for Rapid Roller Co., Chicago, since 1939, was guest speaker at the April meeting and in his talk on "Use and Care of Offset Rollers and Blankets" he dwelt in detail on proper washes for both rollers and blankets. Rollers, he said, among other significant suggestions, begin to break down first at the ends and he recommended special attention to removal of ink from the ends, particularly if machine washing is practiced.

During the brief business session presided over by Pres. Carl Ericksen, tribute was paid to the memory of George King of American Printing Ink Co., who had passed away a few days earlier. New members welcomed into the club included Charles Richter, U. S. Printing & Lithograph Co., St. Charles; Herbert Homacher, Sheldon Printing Co., and Charles Kayser, Miehle Printing Press & Mfg. Co. Subject of this month's meeting, on May 25, will be "Summer Complaints (Lithographic").

•

Conn. Plans June 2 Meeting

The Connecticut Valley Litho Club plans to hold its final meeting before the summer break on Friday June 2 at the City Club, Hartford. The subject of silk screen printing will be discussed, with a demonstration by a representative of Sinclair & Valentine Co., New York, and with a representative of the Silk Screen Association to answer questions.

The club is planning its annual outing to be held at Longmeadow, Mass., during the summer, and regular monthly meetings will be resumed in the fall.

Balto. Hears Insurance Man

E. Stuart Windsor, vice president of Riggs-Warfield-Roloson, Inc., an insurance firm, addressed the Litho Club of Baltimore April 17, and discussed various types of insurance coverage which pertain to lithographic operations. The subject of the meeting was decided upon as the result of the recent fire which destroyed the plant of Barton-Cotton, Inc., lithographing and publishing firm. The plant has since been rebuilt.

The "coffee speaker" at the April meeting was Edwin Steinwedel, superintendent of the lithographic department of Crown Cork & Seal Co., who gave an informal talk on his company's operations and displayed products which it manufacturers.

The club's annual "Frolic Night" was planned for Monday, May 15, the club's regular meeting night. This concludes the regular meetings until September, but the annual crab feast is planned for Saturday July 22 at Hasslinger's restaurant. William Claggett is chairman of arrangements, and is to be assisted by Gus Trabing.

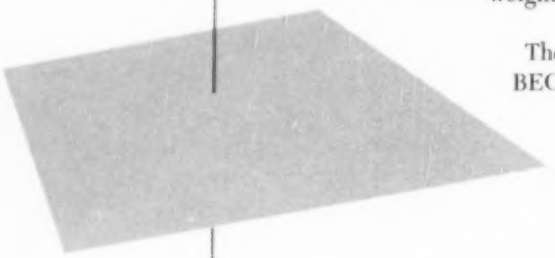
Beckett BRILLIANT Opaque

meets the most exacting requirements of offset lithography.

A chaste, clear whiteness and a singular freedom from show-through are its notable characteristics.

Its superiority is quickly seen in the way it enhances the pigments of printing inks. Brilliant printed effects become routine. Photographs, color illustrations and type reproduce with fidelity and sharpness.

Like our standard offset, BECKETT BRILLIANT OPAQUE is surfaced-sized. In addition to vellum, it can be supplied in halftone and a variety of other finishes. The vellum finish is stocked in two sizes – 25 x 38 and 35 x 45, in substance weights 17 x 22 – 20-24-28-32 lb.



The distinctive appeal of productions on BECKETT BRILLIANT OPAQUE is making this sheet the favorite of lithographers and buyers of offset lithography everywhere.

A request to your paper merchant or to us will bring samples to your desk.

The BECKETT Paper Company

HAMILTON, OHIO

Makers of BUCKEYE Cover, BECKETT Cover, BUCKEYE Text, BECKETT Text, TWEED Text, BECKETT Offset, BECKETT Brilliant Opaque, Greetings, Announcements, Writings and Specialties.

Record Number at Milwaukee

A record number of persons, 80 members and guests, attended the March meeting of the Milwaukee Litho Club at the Bavarian Gardens, and heard a two-man discussion of bi-metal plates. The speakers were Dr. Anthony George and Rudolph Gadjos, of the Sinclair & Valentine Co., New York. Dr. George gave an outline of the history of lithographic plates, and their advantages and drawbacks, and credited research with the development of improved plates. He discussed bi-metal plates, and then Mr. Gadjos outlined the step by step procedure of platemaking with the S. & V. plate. Another feature of the program was the showing of the motion picture "The Graphic Arts March On," sponsored by S. & V. Club secretary Anthony Dworzak reported the longest question period on record followed the talks.

The club's April 25 meeting was held at the same location, followed by a visit to the Pohlman Studios, to study lighting, studio set-ups and processing of lithographic copy.

•

Metal Decorator Incorporates

Pittsburgh Metal Lithographing Co., Inc., metal lithographing and decorating business, was incorporated in March by William J. Miller, 34-30 38th St., Long Island, N. Y., John E. Buell, 141 E. 88th St., New York City, and Thomas J. Davis, 30 Garden Ave., Bronxville, N. Y.

•

Pittsburgh Co. Adds Cutter

Atlas Lithographing Co., Pittsburgh, recently installed a Lawson Electronic spacer cutter. The company, established in 1933 by H. B. Shute, R. G. Perry and A. W. Tipler, now occupies 17,000 square feet of space at 930 N. Ave., Millvale, Pa. C. J. Meier is plant superintendent.

•

New Einson-Freeman Process

"Technicrome," a process which produces 8-color transparent plastic reproductions for use with back-lighting for displays was announced in April by Einson-Freeman Co., Long Island City, N. Y., lithographing and window display firm. The transparencies range upward from 8 x 10" in size, and shadow boxes are of lithographed cardboard, glass, plastic or other construction. A 40-watt lamp is used for light.

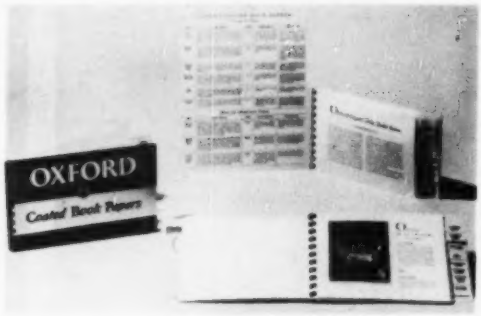
•

Interchemical Moving Offices

During this summer Interchemical Corp., New York, will complete its plan to consolidate all the major executive offices and staff functions on four and one-half floors in one building — the new, air conditioned 21-story Fawcett Building at 44th Street and 6th Avenue, New York. Occupancy is planned for June 1.

The executive offices of Interchemical Corporation will be located there, and International Printing Ink and In-tag Divisions will move to this location from temporary quarters at 650 Eleventh Avenue. Other divisions which will move to this location from the Empire State Building are: Interchemical Finishes, Metal Decorating Sales and Service, and Standard Coated Products Division. The Foreign Department will move from the 45th Street Interchemical Research Laboratories building.

EQUIPMENT
SUPPLIES, SERVICES, BULLETINS



New Oxford Paper Sampler

Oxford's new Coated Paper Sample Book has just been distributed to Oxford Paper Co. merchants. This manual showing the Oxford coated paper line is identified by the bright colors of the "Oxford Label" design; and is pocket-size. The front cover offers a complete description of the qualities of each grade.

Vinylite Base Film Available

Ansco Reprolith Ortho Vinyl Base Film, a new graphic arts film of "extreme dimensional stability," is now available, Ansco has announced. Designed for map making, line separations and photo template work, this film has an emulsion of high contrast and speed characterized by high orthochromatic sensitivity. Its use with filters permits improved rendition of copies which would otherwise require hand work on the negative, the company says.

•

Book on Advertising Production

"Production in Advertising" is the title of a textbook published recently by Colton Press, 468 Fourth Ave., New York. Over 23 pages are devoted to the lithographic process, and credit for assistance in compiling this information is given to the Lithographers National Assn. The book is priced at $15.

•

New Oil Ink Web Press

Fine detail in halftones and coverage on large solid areas can be printed on bag papers, fancy wrapping papers or butter wraps with a new web four-color oil ink printing press introduced by Potdevin Machine Company, the company claims. The cylinders on the Model 418 are interchangeable for either curved metal plates, or adhesive backed rubber plates which do not require makeready. Information is available from the manufacturer at 1285 38th St., Brooklyn 18, N. Y.

•

Booklet on Vari-Typer

A booklet "How to Make Your DSJ and Vari-Typer Composition Interesting and Easy to Read" has just been issued by the Ralph C. Coxhead Corp., 720 Frelinghuysen Ave., Newark 5, N. J.

•

New Metal Black Finish

The Watson-Standard Company has announced a new improved black litho finish for the metal decorating industry, known as Watson-Standard 10-197A. Objectionable undertones have been eliminated, the company claims, and work using the black, when fabricated into a closure or cap, has an intensity of blackness, which compares to that of a plastic molded closure. The product is formulated primarily for rollercoating.

The company also announced the development of a series of gold lacquers for the metal decorating industry, which are suitable for can coatings, cap and closure coatings, crown coatings and other specialized uses. They are applicable where fabrication process, sterilizing, chemical resistance, adhesion and water resistance are required.

Information may be obtained from the manufacturer, The Watson-Standard Co., 225 Galveston Ave., Pittsburgh 19, Pa.

•

Announce New "Little Giant"

A new Little Giant letterpress, with improvements in production capacity, impressional strength, and in its ability to handle a variety of work, has been announced by American Type Founders, Elizabeth, N. J. Known as the Little Giant No. 6, it has a sheet range from 3¼" x 5½" to 12" x 18". A descriptive folder is available from ATF.

This press currently is touring the country in a large truck, for demonstration purposes.

•

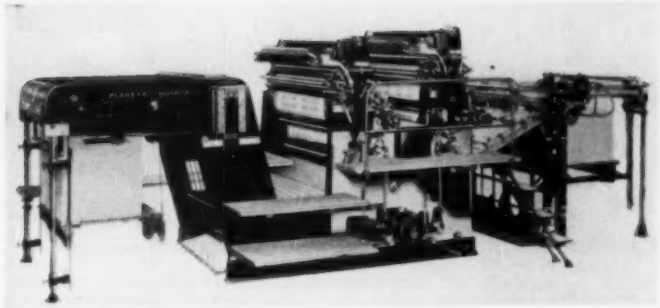
New Aniline Press

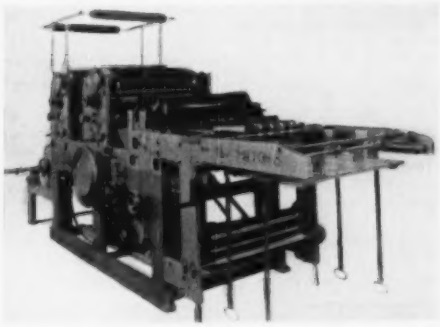
The Hudson-Sharp Machine Co., Green Bay, Wis., has announced a new all-purpose aniline rotary printing press for the specialty printer. The new unit is a simple web fed press which can be used in aniline, letterpress and rotogravure printing; and may be used either with a rewinder or with a sheeter.

•

ATF Man in Europe

Louis Pleninger, vice president in charge of foreign sales, American Type Founders is now on an extended trip through Europe.





Above: The Planeta sheet fed offset press.

Left: The Milton web offset press

Announce Milton, Planeta Presses

Two offset presses, made in Europe, are being introduced in the United States by Acme Litho Plate Graining Corp., 96 Jay St., Brooklyn. Milton Berg, president, announced in April. They are the Milton, a small web two-color offset press, and the Planeta, a 36 x 50" two-color sheet fed press. The two presses are manufactured by the Polygraph Corp., Leipsig, Germany, large manufacturers of graphic arts machinery.

The Planeta press has an automatic water supply to the fountain from a supply tank which keeps the solution at a constant level. An improved inking system also is claimed. A Spiess stream-type feeder is used, and the chain delivery incorporates an improved conveyance to the delivery table, it is claimed. Several mechanisms operate in enclosed housings in an oil bath which simplifies service.

The Milton press takes a web up to 24" wide, and has a cylinder circumference of 17⅝". The cylinder has a thin gap which allows for a printing area up to 17¼ x 24". The printing units are arranged to print both sides of one web, one side of two webs, or two colors on one side of one web. The press is constructed so that additional units may be added. Rewind equipment is standard, but sheeting, folding, and other operations may be added. It is designed for simple operation in smaller shops. Plate changes can be made in three minutes, it is claimed.

Mr. Berg returned in April from an eight months stay in Europe, during which he attended the Leipsig and Frankfort Fairs, and studied printing equipment in several countries. He stated that he had worked with Polygraph in the design of the Milton machine.

•

Offer German Letterpresses

The Poly Automatic press, made in Germany before the war, is again in production in an improved model, and is being offered to the trade in the U. S. The press takes a sheet up to 13⅜ x 19⅝", and is said to run 4000 impressions per hour. It is powered by a 1½ H.P. motor, and weighs 2800 pounds. The postwar model has been tested in the U. S. for one year, the company's announcements stated. The distributor in the U. S. is Parsons & Whittemore, Inc., 10 E. 40 St., New York 16.

•

New Whitney Offset Paper

Whitney Offset, a new offset paper has just been announced by Hollingsworth & Whitney Co., Boston. Extensive tests of large color runs have been made over the last six months with the paper on all types of presses, the company reports, and it is described as having "greater opacity, minimum stretch, greater bulk, less curl and lint, and good reproduction on both sides." Samples are offered through the home office, 60 Batterymarch St., Boston, and sales offices in New York and Chicago.

•

Show New Screen Process

The new autopositive photographic film, which prints directly to a positive and permits photographic preparation for silk screen printing without the necessity of a darkroom, was demonstrated at a regular meeting of the Ohio Valley Silk Screen Process Assn. in Hotel Gibson, Cincinnati, April 21. The demonstration was a feature of a clinic conducted by Roy W. Schroh and R. O. Fossett of the SherwinWilliams Co., Cleveland.

•

Issue Photo Data Booklet

A new, revised booklet on Gevaert graphic arts materials and data has just been issued. The pocket-size booklet is available from Gevaert Company of America, Inc., 423 West 55th Street, New York 19, N. Y.

•

Describe Paper, Ink Instruments

A folder describing its line of paper and ink testing instruments is now available from the Thwing-Albert Instrument Co., Penn St. and Pulaski Ave., Philadelphia 44, Pa., the company announced.

•

Offers Hand Cleaner

Ink-Solv "30," a powder hand cleaner for removing ink and stains, is being sampled to the trade by Schultz Laboratories, 1521 12th St., Boone, Iowa.

Booklet on Masking

"Basic Masking of Color Transparencies for Photomechanical Reproduction," a 32 page 5¾x8½" illustrated booklet, has just been issued by the Eastman Kodak Co., Graphic Arts Sales Div., Rochester 4, N. Y. The booklet contains a comprehensive discussion, with some step-by-step procedures on photographic masking techniques. Copies are available from the company.

•

Announce Line-Up Table

The Paraliner line-up and light table was announced in April by The Paraliner Co., Colorado Bldg., Washington 5, D. C. The entire working surface of the table can be rotated 90 degrees, the company said, and can also be tilted up to 70 degrees from a level position. The glass top is 26 x 26" and is fluorescent-lighted.

•

Offer Senefelder Prints

Reproductions of an old French lithograph "The Old Print Shop," showing Aloys Senefelder in his shop, are being distributed by Offset Printing Plate Co. of New York, 100 Bleecker St., New York 12. Small folders were sent to the trade announcing the prints and carrying miniature reproductions of it.

•

Issue Bindery Booklet

A pocket-size booklet, with information about the services offered by Tauber Bookbindery, Inc., 200 Hudson St., New York, has just been issued by the company.

•

Announce Jogging Machine

A paper jogging machine, with an automatic on-off switch, has been announced by the Magic Circle Mfg. Corp., 6224 E. Admiral Place, Tulsa, Okla.

•

Justowriter Tooling Up

Commercial Controls Corp., Rochester, N. Y., is now tooling up for regular production of the Justowriter machine, automatic justifying electric typewriter, and in a few months will be ready to announce prices and delivery details. This was made known in April when the company held a three-day demonstration of the Justowriter and the Flexowriter at Hotel New Yorker, New York. Frank DeWitt, director of graphic arts research, was in charge of the exhibit, and a new type face, designed by Bruce Rogers, was shown. The Justowriter unit consists of two typewriter-like machines. The first is used as an ordinary typewriter for typing copy. This typing is done within a few spaces either way of justified lines, and a ribbon tape is punched by the machine. This tape is then fed into a second machine and activates it automatically, at high speed, producing typed proportionately spaced and justified copy. Justification is done by word spacing. Errors in the original typing can be corrected by blanking out an entire line by the press of a button. The second machine also has a regular keyboard and can be used as an ordinary electric typewriter.

Information is available from the company, 1 Leighton Ave., Rochester 2, N. Y.

Plan New Phila. Ink Plant

Bensing Bros. & Deeney, Philadelphia ink making firm, has announced plans to build a new $300,000 ink plant at Hunting Park and Indiana Avenues. The building is to provide about 30,000 square feet of floor space, and is to be completed by this fall.

PACKAGING SHOW

(*Continued from Page* 57)

ping was his son, Henry A. Topping, Jr., in charge of midwestern sales in Chicago, Walter J. Ash, vice president and director of sales, Brooklyn, and Fred O. Russell, southwestern sales representative. Stress was placed in their presentations on Consolidated's specialized sales stories that register in the seven seconds of attention which point of sales displays get on the average from passing shoppers.

Milprint, Inc., Milwaukee, Wis., devoted its entire space to display of packaging products created for its customers. Under direction of Gene Smith, sales manager of the litho Dept., the large sales staff stressed, also, the merchandising and display services available to all Milprint customers.

Milprint, said Mr. Smith, in an interview, does not limit itself to setting paper and ink. "The package," he said, "is very essential to any merchandising plan, but it is only the beginning. From our experience we have learned that no matter how attractive the package design or how efficient it is as a container, its full effect in creating sales is not gained if it is not tied into a merchandising campaign which utilizes lithographed materials.

"Our task is thus to show our customers not only how we can produce an effective package at a saving, but also how through lithographed displays we can do a selling job for him that will reap the full potential harvest inherent in his product."

American Can Co's exhibit was built on the theme "Eye appealing lithographed labels," with a moving line of decorated tin cans to emphasize the point. Also shown were metal candy boxes and trays decorated by offset. In charge were M. P. Cortilet, central division manager at Chicago, D. B. Craver, sales division manager, New York, and 12 sales staff representatives.

Tompkins Label Service, Philadelphia, showed its extensive line of labels, produced mainly by letterpress, according to Wm. Baila, sales manager, however, offset is also used, he said, for reproductions on long runs.

Another combination plant was Standard Printing Co., Columbus, Ga., which displayed its package printing service that uses rubber plates and aniline inks. Standard also operates two Harris offset presses. W. E. Hawkins, sales manager, said, but uses these for production of a general line of lithographed products.

American Coating Mills, Chicago division of Owens-Illinois Glass Co., displayed box board, produced in the company's continuous clay coating plants at Elkhart, Ind., and Middletown, O., also products of the carton

converting plants at Chicago, Elkhart and Grand Rapids, Mich.,

American Type Founders Sales Corp. Elizabeth, N. J., talked up its rotogravure presses for printing wraps and bags of paper, glassine, foil and cellophane. Also shown was a new line of laminated collapsible plastic tubes for tooth paste, shampoos and kindred products produced on ATF equipment. In charge was Elmer G. Stacy, manager of A.T.F.'s Klingrose Gravure Division.

Finishing and mounting services of the Arvey Corp., Chicago and Jersey City, N. J. were presented in a display directed by Walter Newton, sales manager. Featured also was the company's "Lamcote," plastic film for laminations.

Inks for the packaging trade were represented by four ink manufacturers, including International Printing Ink, division of Interchemical Corp., New York; Sun Chemical Corp. N. Y., Bensing Bros & Deeney, Philadelphia, and Cresent Ink & Color Co., Philadelphia. Sun Chemical Corp's Rutherford Machinery Co. division also featured an offset press for lithographing sheet metal, and a new coater for applying lacquer, paints or varnishes and other coatings.

On the basis of attendance and the business done at the show, a record year for the packaging industry was forecast by officers of many of the exhibiting companies.★★

AIR CONDITIONING

(*Continued from Page 61*)

absorbents include solutions of the halides—such as lithium chloride—and organic liquids, such as the ethylene glycols.

Understanding of dehumidification with sorbents may be clarified by contrasting this method with refrigeration and other methods which simultaneously cool and dehumidify the air. These methods remove moisture by lowering the dry bulb temperature below the dew point. The quantity of moisture removed depends upon how far below the dew point the dry bulb temperature is lowered. The air delivered by the refrigerating equipment is almost saturated air at a low dry bulb temperature. Both moisture content and temperature are below the levels required in the lithographic plant. When discharged into the conditioned space and mixed with its atmosphere, the heat load and moisture load on the design day bring moisture and content temperature up to the required levels. The total heat removed from the air—both sensible and latent heat—is carried away by cooling water (condenser water in the case of refrigeration). A refrigerating system usually has a capacity to handle the determined moisture design day; and less than peak heat load but peak humidity requires means for heating the cool air to the required temperature level.

Dehumidification by sorbents works differently. There is no cooling. Instead, as moisture is removed from the air, latent heat is changed into sensible heat. This may be removed from the air by cooling water or other means. With refrigeration both sensible and latent heat are carried away by the condenser water. With sorbents latent heat alone must be disposed of.

The available adsorbent materials which may be used in air conditioning are silica gel, activated alumina, and a series of natural products known as activated bauxite.

In general, the adsorbents are cap-

able of removing moisture from the air more completely in relation to their weight than the absorbents. Activated alumina, for example, under the most favorable conditions, can remove by adsorption substantially 100 percent of the moisture in the surrounding atmosphere.

In this discussion, vapor pressure has been omitted thus far, for understanding of air conditioning processes is possible without it. But in the case of absorbents, the simple explanation does involve vapor pressure.

Without going into an extended definition of vapor pressure and partial pressures, it may be said that an absorbent acts as a dehumidifying agent when it has a pressure, with respect to water, lower than the partial pressure of the water vapor in the air and water vapor mixture.

Solid calcium chloride is frequently used for dehumidification. Its practical use is limited to small driers containing lumps of calcium chloride through which air is forced under pressure. As in the case of adsorbent materials, reactivation consists of driving off the absorbed moisture.

Halide solutions are generally water solutions of chlorides or bromides, or other inorganic materials, whose vapor pressures are reduced to a suitable level by concentration and control of temperature.

(More excerpts from this book on Air Conditioning will be published in later issues.—Editor)

TIME SCANNER

(Continued from Page 31)

editor to specify, and to have executed, color changes in the transparent copy to meet his requirements before scanning. Under these conditions the enlarged copy becomes the color guide for the lithographer or engraver.

The color scanner, as has been stated, is limited in its present application to the preparation of separations from transparent copy. In so far as the use of the scanner for the reproduction of paintings, drawings, or other flat copy, is concerned, Time's experience has been that the improved quality in the printed reproduction accruing by the use of the scanner has more than justified the use of a color transparency as the first step in rendering such copy.

There has been no question in the minds of those responsible for the development of this machine, Time says, that a tremendous impetus to quality improvement would accrue to a process which provided the lithographer or photoengraver with a well balanced set of separations as his first step on the way to reproduction. This quality improvement should result from the fact that the lithographer or engraver can devote his time and craftsmanship toward improved quality of plates rather than on the process of correcting for an inadequate set of color separations.

It was said by a *Time* representative at the demonstration that the operator of the scanner needs a knowledge of color and must judge the copy and make dial adjustments for the proper volume of the various colors.

Time points out that the color scanner is a tool for the graphic arts craftsman designed to assist him in the production of superior color printing quality. It should be clearly understood that the color scanner at present level of development is not perfect in its execution of the color separation job, and can attain its potential perfection only by the closest possible cooperation between the users of its product and its designers.

The scanners were demonstrated at 270 Park Ave. in New York, and at the plant of R. R. Donnelley & Sons Co., Chicago.★★

LITHO CLUBS

(Continued from Page 34)

Founders, discussed the web offset press, and presented a series of photographic blow-ups and diagrams of the many types of web presses built by his company. Factors which have helped in the development of the web offset press include the demand for high speed and the combining of several different operations in one machine. Many problems are involved in web operation, including

those caused by higher speeds, necessity for faster ink drying, and the need for folding and other types of delivery. Limitations include the fixed cylinder circumference which in turn regulates the sheet size cut-off. The presses are economical for such work as wrappers, publications, telephone directories, forms, labels, etc.

Mr. Murray discussed four general types of web presses: publication, web color presses, form presses, and specialty web presses. These presses range in cost from $15,000 to $500,000 he said.

A new offset paper with a pigmented surface, instead of the fibrous surface common to such papers, is to be introduced and will be generally available within the new few weeks, John L. Kronenberg, head of the lithographic division, S. D. Warren Co., announced during his talk "Papers for Precise Reproduction." This paper will be offered at a cost to the lithographer comparable to good offset paper, he said. It is neither a coated nor a wove finish, but has a pigment film on the fibre. Advantages claimed for the new paper include: more snap and brilliance, brighter and whiter surface, good opacity, better dot definition, blacker blacks, minimum of water required, less distortion from tack, dimensional stability, and uniform ink lay.

Mr. Kronenberg also discussed double coated paper with new materials which have more affinity for ink. He showed a series of charts and photomicrographs to illustrate lithography on various types of papers. He also displayed press sheets of offset coated two sides papers and commercial work using the new offset paper.

Randolph T. Ode, president of the Providence Lithograph Co., and president of the Lithographers National Assn., was introduced at the sessions, and made some brief remarks praising the Litho Clubs for their contribution to the industry's progress.

A reception and cocktail party was held Friday evening for the visitors by the lithographers of Boston and the Boston Litho Club. The final event of the convention was the annual banquet and dinner dance held Saturday evening. A floor show, music and dancing followed the dinner.

Notes: A couple of years ago the NALC changed its convention dates from January to April in order to avoid winter weather. On Thursday evening, April 13 before the 1950 convention, New England had a heavy fall of snow, centered in the area south of Boston. Planes were grounded, driving was hazardous and many were delayed.

* * *

Many supply firms held open house throughout the convention and their suites became headquarters for many informal get-togethers.

* * *

The president of the newly formed Rochester Litho Club was at the convention, and indicated his club's intentions of joining the NALC as soon as details can be arranged.

* * *

Just before the banquet the hotel was overrun with Boston firemen with all their paraphernalia. Someone set fire to a mattress in one of the first floor corridors, which raised a lot of smoke and caused an alarm to be sounded. Some dozen fire engines choked up the streets for awhile and lithographers were looking out the windows like housewives in Brooklyn.

* * *

The winner of the Boston Litho Club's television - radio - phonograph was Arnold H. Ahlquist, of the stripping department of Recording & Statistical Corporation. Among the other prize winners were Stanley A. Howell, Kohl & Madden Printing Ink Co., A. Tashjian, Rand Avery-Gordon Taylor, Boston; Charles Tanzilli, Winthrop Printing & Offset Company, Boston, and Edward J. Brady, Barta-Griffin Co., Boston.

* * *

The convention committee was made up of Charles E. Mallet, Rand Avery-Gordon Taylor; Edward W. Harnish, Buck Printing Co.; James Beldotte, Winthrop Printing & Offset Co.; Merrill Friend, Spaulding-Moss Co.; Philip Shakespeare, Kohl & Madden Printing Ink Co.; John Raymond, Storrs & Bement; William Law, International Printing Ink; and Tom Tierney, *New England Printer*.

PRECISION
QUALITY
DURABILITY

In HALFTONE
and MEZZOGRAPH
SCREENS

...Yet Costs are *Unusually Low!*

Users of International Screens find them of a quality and precision sharpness comparable to the finest screens ever produced. They find in them a greater durability and higher resistance to scratching. Yet the same expenditure required for only a few screens of other types has permitted the purchase and use of International Screens which will meet the full range of a plant's requirements.

A new folder describes these screens in complete detail, lists prices, and includes information on our five day trial offer. Write for it today.

MOORE LABORATORIES
70 West Montcalm Street Detroit 1, Mich.

INTERNATIONAL SCREENS

THE RIGHT PLATES LIKE THE RIGHT BATS HELP MAKE THE HITS...

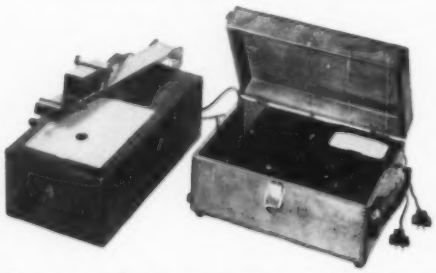
You can improve your batting average by using quality plates. Over 200 all-star lithographers and printers depend on Graphic Arts to come through—every time at bat.

Out of our 'dugout' comes: commercial art, photography, both black and white and color; plates for letterpress; negatives, positives and plates for offset, positives for rotogravure.

MAIN OFFICE AND PLANT
110 OTTAWA ST.,
TOLEDO 4, OHIO

GRAPHIC ARTS CORPORATION OF OHIO
TOLEDO · DETROIT · NEW YORK · CHICAGO

PHOTOVOLT *Electronic* *Transmission Densitometer*



Speed up production, reduce waste of labor and material by using this high-precision instrument for

- reliable indication of density, independently of personal judgement and light conditions
- densities up to 5.0 for plates up to 30"x40"
- for wet and dry plates, for color and black-and-white, for negatives and transparencies.

ALSO

Reflection Meter Mod. 610

for ink fountain and color control in press runs

Write for Literature to

PHOTOVOLT CORP.
95 MADISON AVE. NEW YORK 16, N. Y.

MODERN LITHOGRAPHERS
Don't Waste Paper
Time and Money
Hand Jogging.

They Know —

SYNTRON

PAPER JOGGERS

Align heavy board to onion skin ten times faster than by hand — do the job better and easier — and without marking the paper.

Write for Literature

SYNTRON CO. 585 Lexington Homer City, Pa.

MILWAUKEE

BRONZERS

Completely rebuilt to give New equipment performance. Can be used with all presses. Write for further details.

C. B. HENSCHEL MANUFACTURING CO.
229 W. Mineral St., Milwaukee 4, Wis.

CLASSIFIED ADVERTISING

All classified advertisements are charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, $1.00 minimum. One column ads in a ruled box, $7.50 per column inch. Address replies to Classified Advertisements with Box Number, care of Modern Lithography, 254 W. 31st St., New York 1.

Closing date: 25th of preceding month.

Help Wanted:

COLOR RETOUCHER & DOT ETCHER: Should have masking experience. Give us details of your experience, previous connections, earnings and references. Write today—this is an exceptional opportunity for capable craftsman. Address Box 501, c/o Modern Lithography.

OFFSET PRESSMAN: Capable turning out high quality work on production basis. Permanent. Full time. No layoffs. Real future with fastest growing strictly offset plant in Southwest. Give full details first letter. References will not be contacted unless and until authorized. Fine Arts Litho Company, 701 East 15th St., Dallas, Texas.

POSTER ARTISTS, DOT ETCH artists, steady employment. McCandlish Lithograph Corp., Roberts Ave. & Stokley St., Philadelphia 29, Pa.

OFFSET PRESSMAN: For Harris 17x22 and 22x34. Good opportunity in shop near Boston. Ideal working conditions. Write, stating past experience and wages expected. Sanderson Brothers, North Abington, Mass.

CAMERA MAN, STRIPPER, PLATEMAKERS: Installing a complete new offset platemaking department in our plant and will need first class craftsmen, thoroughly experienced. No others need apply. We specialize in 2 and 3 color work and high quality halftones. Steady position, good pay, splendid working conditions. Printing Service Co., 642 S. Main St., Dayton 2, Ohio.

OFFSET STRIPPER (dry film) able to do mostly 2-color close register work of top quality. Permanent position in growing concern. Cox Lithographing Corp., 130 Vine St., S.E., Warren, Ohio.

GREETING CARD ARTIST: We have an opening for an experienced artist to make black and white work drawings from colored dummies. Must know preseparated art work. Unusual opportunity for qualified person to act as supervisor. Good salary with excellent working conditions. Give complete information in your reply. American Greeting Publishers, Inc., 1330 W. 78 St., Cleveland 2, Ohio.

LITHOGRAPHING ADVISOR & CRITIC: This large mid-western manufacturer of greeting cards requires the services of a person with a broad background in color lithography. Do you know the elements which distinguish fine printing from mediocre? Are you qualified to apply corrections to color proofs and provide final approval for press runs? Could you represent us in the plants of our contracting printers in the solution of problems and in discussion with technical and administrative personnel? Do you know copy preparation well enough to act as technical advisor to the Creative Department? If you are qualified please write us in detail. Salary open. Minimum of traveling. 40 hour week. Address Box 520, c/o Modern Lithography.

OFFSET PRESSMAN: thoroughly experienced 17x22 Harris. Full range of commercial work. Top Quality. Must be first rate, steady, sober. Southwestern U. S. Ideal healthful climate. Address Box No. 525, c/o Modern Lithography.

PRESSMAN—Webendorfer or Harris, who also likes to tinker with power boats. Address Box No. 522, Modern Lithography.

SUPERVISOR - ESTIMATOR Experienced. Small offset plant, Metro, Phila. College trained preferred. Later can invest and participate. Address Box No. 521, Modern Lithography.

Situations Wanted:

FOREMAN, CAMERAMAN, STRIPPER: Experienced shop foreman, competent cameraman, stripper and platemaker, accustomed to quality work, seeks connection with progressive concern in any location. Present connection working shop foreman past seven years. 21 years experience in trade. Address Box 503, c/o Modern Lithography.

(Turn the page, please)

PRESSMAN: Veteran who has had 4 years experience as offset helper and a complete course in offset printing desires a job in Baltimore, Md. area as pressman or apprentice pressman. Address Box 502, c/o Modern Lithography.

FOREMAN: Two color offset pressman. Experienced shop foreman. 22 years experience on color process work. A-1 color matching. Desire change with progressive concern. Metropolitan area preferred. Address Box 504, c/o Modern Lithography.

CAMERA MAN: 12 years experience lithography. Black & white line and halftones. Also some experience in film dept. Address Box 505, c/o Modern Lithography.

LITHO PLANT SUPERINTENDENT: Desires connection with modern progressive concern. 28 years experience all types of work. Willing to locate anywhere. Address Box 506, c/o Modern Lithography.

PRODUCTION ASSISTANT: 1½ yrs. experience in non-plant set-up. Familiar with general production details; order, layout and copy preparation, type, estimating, follow-up. Desires to grow in a practical plant environment. Excellent technical education and experience. Has studied, and is continuing graphic arts studies at Columbia, N. Y. U., N. Y. Trade School. The very best of references can be submitted. Present employer knows of this advertisement. Available immediately since replacement has been trained. Eligible for one year under G.I. Bill if employer desires such an arrangement. A future is the only consideration. Address Box 507, c/o Modern Lithography.

JOURNEYMAN: Halftone cameraman with color experience, thoroughly capable of supervising black and white camera department. Address Box 508, c/o Modern Lithography.

OFFSET PRESSROOM FOREMAN who has been in the trade over 20 years doing high-grade color work desires to make connections with a progressive shop. Is a capable leader of men and can assure quality and production. Also capable of plate room supervision. Address Box 509, c/o Modern Lithography.

PRESSMAN: Experienced on both single and multi color presses. Would like a position in a shop that is looking ahead as I am only interested in a job with a future. Address Box 510, c/o Modern Lithography.

COMBINATION CAMERAMAN, stripper, platemaker, desires position in smaller shop. Prefer west. Also experienced on offset presses. Address Box 511, c/o Modern Lithography.

CAMERAMAN: 15 years experience, all glass and contact halftone screens. Knowledge deepetch, color separation. Experienced platemaker. Address Box 512, c/o Modern Lithography.

PLATEMAKER: Experienced all phases platemaking including photo composing machine, black and white stripping, desires position New York City or vicinity. Address Box 519, c/o Modern Lithography.

Miscellaneous:

WANTED: Two Wagner magnetic spot coating machines, to take sheet sizes up to 30 x 36 inches. State age, condition and price. Address Box 513, c/o Modern Lithography.

SALES AGENCIES WANTED: We are a West Coast corporation producing a commodity in an established billion dollar industry. Our secret techniques and process enable us to place our products on the market at about 50% below competitive prices. This type merchandise is in constant demand by manufacturers, advertising agencies, display and sales promotional organizations, lithographers and photo engravers. In fact, every class and type of industry can use our products. Exclusive territories will be granted qualified sales representatives. Liberal commissions. No franchise fees or other intangible costs. Write, stating line carried, territory covered, number salesmen, etc. Address Box 514, c/o Modern Lithography.

WANTED: Complete high pile delivery only—for Harris S7L 36x48 press. Address Box 515, c/o Modern Lithography.

WANTED: Harris 17x22 offset press with stream feeder. State age, condition, price. Address Box 516, c/o Modern Lithography.

WANTED: 2 offset presses by Chicago printer, not over 15 years old, sizes from 22x29 to 28x42. Address Box 517, c/o Modern Lithography.

WANTED: Three (3) comparatively new model offset presses. Must be in excellent condition. 1—14x20; 1—17x22; 1—22x29. Cooper Press, 1084 Westminster St., Providence 9, R. I.

PRINT-OFF— Amazing new solution, removes old images from Offset, Multilith and Davidson plates. Saves regraining plates, money. Use same plate over and over again without regraining. $6.75 per gallon. Graphic Arts Laboratories, Box 365-B, Hamilton, Ohio.

For Sale:

FOR SALE: 22 x 29 Webendorfer, Model SA138—producing every day—in excellent condition. Write Wilcox Press, Inc., Ithaca, New York.

FOR SALE: 36x48 Harris S7L offset press in good operating condition. Ideal for black and white and halftone. May be seen at any time. Electrical equipment is 25 cycle A.C. Available in June to make room for new 2-color. Priced to sell—$1500 on the floor. Williams & Heintz Company, 220 Eye St., N.E., Washington, D. C.

FOR SALE: Levy series A 17"x17" camera with stand and 16" series 5 Cooke lense. $300. F.O.B. Mosing Engraving Service, Rochester, Minnesota.

FOR SALE: Rutherford Lithography proof press, size 30x36, serial 9834, A.C. motor. Originally purchased new 1937. Mechanical condition guaranteed. William M. Kemp Co., 444 Market St., San Francisco, Calif.

FOR SALE: 36"x48" Harris Model S7L Extension Pile Delivery — Can be seen operating on first class color work. Priced in Canadian funds. Ashton-Potter Ltd., 1 Phoebe St., Toronto, Ont., Canada.

FOR SALE: New all metal vacuum frame and whirler for 22x34" press plates—$680.—220 V. 35 amp. Gelb printing lamp for plates up to 50x70—$290. Singer Engineering Co., complete plate making equipment, 248 Mulberry St., New York City.

FOR SALE: Lanston Directo-Plate photo-composing machine; full equipped with 6 printing frames, for plate size 38½x50", fully automatic with hairline registering device. Address Box 518, c/o Modern Lithography.

Explains Halftone Techniques

The lack of a clear and uniform understanding of just what constitutes a good halftone is one of our weak points as lithographers," declared Charles Wood in his remarks at the San Francisco Printing House Craftsmen's "Offset Night" in March. Mr. Wood, head of Charles Wood & Associates, San Francisco lithographers, and second vice-president of the San Francisco Craftsmen, was the principal speaker at the meeting in which Karl Hoffman and Harry Mann were chairmen. More than a hundred members and guests were present.

"Very little has ever been done to clarify and pin down the specific qualities," Wood continued, "that differentiate good halftones from indifferent or poor ones. Some of us look for detail or sharpness, some for color and balance between various illustrations and text, while others strive for facsimile reproduction. All of these qualities are important elements, but no single one is important as an end result."

He explained that the tone and density range of photography exceed the capabilities of any printing process. As to paper, Mr. Wood said that the most important quality is the reflective quality of the stock.

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MacArthur Leaves ATF

Fulton MacArthur, sales manager of the Klingrose Gravure Div., American Type Founders, Elizabeth, N. J., left that company during April. He had been with ATF since it purchased the Klingrose Machine Corp., and prior to that time was with MacArthur Associates, Klingrose sales representatives.

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Flavell Joins Lord Baltimore

Tom Flavell, formerly with Rode & Brand, New York, recently joined Lord Baltimore Press, Baltimore, as a production executive. Before joining Rode & Brand, which recently was merged with Stecher-Traung Lithograph Corp., Mr. Flavell was personnel director of the Lithographers National Assn., New York.

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Join Cincinnati Firms

Staff additions in Cincinnati litho plants include Harry Tueting, process artist, at Technicraft, Inc., and Paul LeTang, city salesman, at Tri-State Lithographers, Inc.

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Helsinki Plant Gets Web Press

The fourth in a series of ATF-Webendorfer web-fed offset presses especially built for printing foreign editions of *Readers Digest* has been completed for installation at the Sanoma Oy plant in Helsinki, Finland.

•

New Firm in New York

Certified Offset Printing Co., (Charles R. Siegener) 136 W. 25 St., was organized recently in New York.

Phila. Assn. Appoints

William H. Jensen, Dando-Schaff Printing and Publishing Co., and Clayton S. Taylor, Brownell Photo Litho Co., will represent the Lithographers' Division on the Board of Directors of Printing Industries of Philadelphia in 1950 and 1951.

Along with directors from other divisions of the printing industry, they were to take office at P.I.P.'s annual meeting and outing May 15 at Llanerch Country Club. From members of this board, future officers will be chosen. The nominating committee, consisting of George L. L. McGinley, chairman, Ketterlinus Litho Manufacturing Co.; C. Wesley Armor, Lyon and Armor, Inc.; and Ralph H. Randall, Harris-Seybold Co., has been appointed by John S. Williams, president of P.I.P.

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Gevaert Appoints Distributors

The Gevaert Co. of America, Inc., New York, recently announced the appointment of a number of new distributors for its graphic arts materials. Medo, Willoughby's, Eastern Graphic Arts Supply of New York; Industrial Distributors of Pompton Lakes, N. J. and Harold M. Pitman Co. of North Bergen, N. J., are handling distribution in metropolitan New York and New Jersey. The New England states are being served by Pitman Sales of New England, Boston, Mass.; while Philadelphia and vicinity is covered by Philadelphia Photo Products. Harold M. Pitman Co. and K. Schlanger serve Chicago.

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Boston Club Meets

The Boston Litho Club was to meet May 10 at the Gardner Hotel and hear a talk on greeting cards by Joseph Bradley, manager of production control, Rust Craft Publishers, Inc., Boston.

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Detroit Co. in Fire Loss

Fire caused damage estimated at $200,000 recently swept through the Brownell Photo-Lithograph Co., Detroit. Early in May the company had not announced plans for re-building.

Trade Events

Lithographers National Assn., annual convention, Edgewater Beach Hotel, Chicago, Sept. 7-9.

Graphic Arts Exposition, Chicago Int'l. Ampitheatre, Sept. 11-23, 1950.

International Assn. of Printing House Craftsmen, Annual convention, Stevens Hotel, Chicago, Sept. 10-13.

Printing Industry of America, Palmer House, Chicago, Sept. 17-23.

National Graphic Arts Education Association, Sherman Hotel, Chicago, Sept. 21, 22, 23.

Mail Advertising Service Assn., 1950 annual convention, Hotel Roosevelt, New York, Sept. 30-Oct. 3, 1950.

National Metal Decorators Assn., annual meeting, Sheraton Hotel, Chicago, Sept. 18-20.

American Photoengravers Association, Chalfonte-Haddon Hall Hotels, Atlantic City, New Jersey, Oct. 9, 10, 11.

Natl. Assn. of Photo-Lithographers, Annual convention and exhibits, Shoreham Hotel, Washington, D. C., October 25-28, 1950.

Natl. Assn. of Litho Clubs, annual convention, Cleveland, April, 1951.

Technical Assn. of the Lithographic Industry, annual meeting, Columbus, Ohio, April 30 May 1, 1951.

Litho Schools

CHICAGO—Chicago Lithographic Institute, Glessner House, 1800 S. Prairie Ave., Chicago 16, Ill.

NEW YORK—New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y.

ST. LOUIS—David Ranken, Jr. School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave. South, Rochester 8, N. Y.

PHILADELPHIA—Carnegie Institute of Technology, Dept. of Printing Administration, Pittsburgh.

WEST VIRGINIA—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation
Wade E. Griswold, Exec. Dir.
131 East 39 St., New York 16, N. Y.

National Association of Photo-Lithographers
Walter E. Soderstrom, Exec. Sec'y.
317 West 45 St., New York 19, N. Y.

Lithographers National Association
W. Floyd Maxwell, Exec. Dir.
420 Lexington Ave., New York 17, N. Y.

National Association of Litho Clubs
James Sovacek, Pres.
Printing Dept., Western Electric Co., Chicago

Printing Industry of America
James R. Brackett, Gen. Mgr.
719 15th St., N. W., Washington 5, D. C.

International Assn. of Printing House Craftsmen
P. E. Oldt, Exec. Sec'y.
18 E. Fourth St., Cincinnati 2

INDEX TO ADVERTISERS

MAY, 1950

(The Advertisers' Index has been carefully checked but no responsibility can be assumed for errors or omissions.)

Tale Ends

MEMORANDUM

TO: All Department Heads

RE: Standard Procedure — Instruction in death of employee.

It has recently been brought to the attention of this office that many employees have been dying while on duty for no good reason at all. Furthermore, the same employees have been refusing to fall over after they are dead.

This Practice Must Stop at Once! On and after May 1st, 1950, any employee found sitting up after he or she died will be dropped from the payroll at once without an investigation, under Regulation #29, Section B.

Where it can be proven that an employee is being held up by a desk or typewriter or any other support which is the property of this Company, a 90 day period of grace will be granted. The following will be strictly adhered to:

If, after several years, it is noticed that an employee has not moved or changed position, the department will investigate. Because of the highly sensitive nature of our employees and the close resemblance between death and their natural working attitude, the investigation will be made quietly so as to prevent waking the employee, if he is asleep. If some doubt exists as to his true condition, extending a pay check is a fine test. If the employee does not reach for it, it may be reasonably assumed that he or she is dead.

(NOTE: In some cases the instinct is so strongly developed, however, that a spasmodic clutching reflex action may occur; don't let this fool you.) In some cases of this type, a sworn statement by the dead person must be filled out on a special form provided for this purpose. Fifteen copies will be made, three copies sent to Washington, and two to the deceased. The others will be lost in the department file.

(Signed) *THE MANAGEMENT*

PLAN FOR QUALITY

"The best advertising photography depicts not only a product and an idea but also a mood. In the case here illustrated, we chose a model and planned a set especially suited to the enjoyment of an unusually fine cigarette. To execute the plan, we spared no pains with the background, props and lighting effects. It took us days. A printer with precision coated paper can create a million high-fidelity reprints of it in less time than we took to produce the first one."

—Stanley Johnson

PHOTO BY STANLEY JOHNSON OF SARRA, INC. FOR CAVALIER CIGARETTES. COURTESY WM. ESTY CO., INC.

CANTINE HAS spent more than sixty years in producing precision coated papers that enable printers to attain high fidelity in the reproduction of fine photographs and paintings—by either letterpress or offset. Always specify a Cantine Coated Paper. Samples on request.

Cantine's Coated Papers

LETTERPRESS: HI-ARTS, ASHOKAN, ZENA, CATSKILL, CANFOLD, M-C FOLDING, VELVETONE, SOFTONE, ESOPUS TINTS, ESOPUS POSTCARD

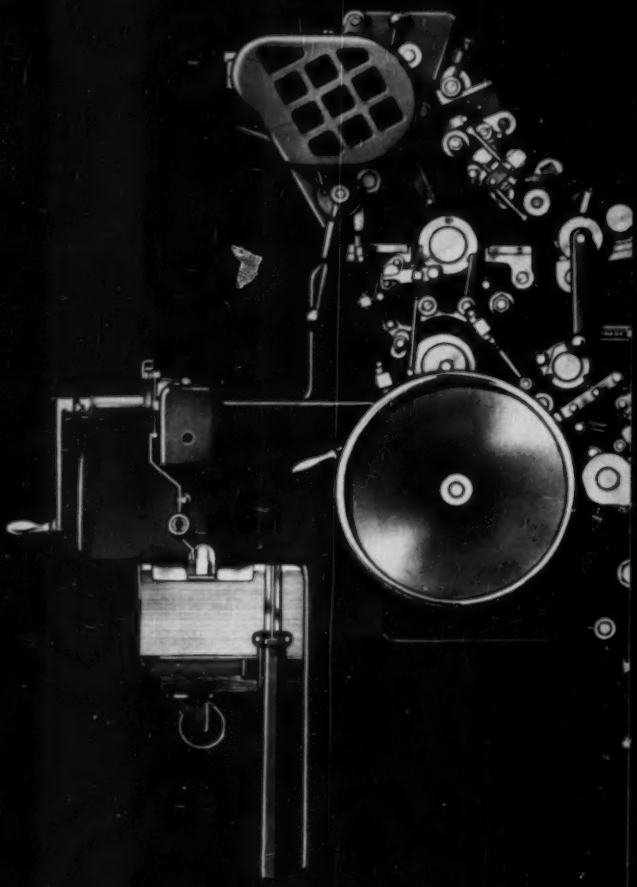
OFFSET-LITHO: HI-ARTS C1S, ZENAGLOSS OFFSET C2S, LITHOGLOSS C1S VARNISH, CATSKILL LITHO C1S

SOLD BY LEADING MERCHANTS. THE MARTIN CANTINE CO., SAUGERTIES, N. Y. SPECIALISTS IN COATED PAPERS SINCE 1888

A new Thoroughbred!

This brand new money-winner comes from a long line of fast, dependable runners; it keeps the HARRIS pedigree features of feed and register—with improvements in control, accessibility and ease of operation.

This thoroughbred has all the points operators have asked for—and more—combined to give you *a better run for your money.*



17 x 22

MODEL • 122A

On Display AT THE GRAPHIC ARTS EXPOSITION • CHICAGO, SEPT. 11-23